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The Condition of K-12 Public Education in Maine 2004

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Maine Education Policy Research Institute

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Prepared for the
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Dear Maine Citizen,

We are pleased to present you with the eighth edition of ***The Condition of K-12 Public Education in Maine***. This book is designed to provide Maine citizens, legislators, and educators a yearly report on the state of Maine public schools and education. This new edition updates educational information which appeared in earlier editions, and also provides information on several new topics.

In 1995, the Maine State Legislature established the Maine Education Policy Research Institute, a joint institute funded by the Legislature and the University of Maine System. Under the direction of the Institute's Steering Committee, the Institute is charged with developing a system for monitoring the progress of Maine K-12 public education, and for conducting policy and research studies. You will find the names of the Steering Committee members and the University of Southern Maine Institute staff listed on a subsequent page, and a copy of the legislation establishing the Institute in Appendix A.

Many individuals provide us assistance in compiling information for this report, and they are listed in the Acknowledgments. We thank them for their assistance.

We hope you find the information in this book helpful. If you have any questions about the information in this report, please feel free to contact us at the address on this letterhead or by electronic mail.

Sincerely,

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Finally, we wish to extend a special thank you to Jeff Peacock at Curry Printing and Copy Center, who provided the technical expertise necessary for the formatting and publication of this book.

Table of Contents

Introduction..... i

General Information about K-12 Public Education in Maine..... ii

Context Indicators..... 1

1. Per Capita Personal Income..... 2
2. Poverty Rate..... 4
3. Tax Burden..... 6
4. Property Valuation..... 8
5. Local Revenues..... 9
6. Education Expenditures..... 11
7. Public School Student Enrollment..... 13
8. Private School and Home School Student Enrollment..... 15
9. Limited English Proficient Student Enrollment..... 16
10. Special Education Student Enrollment..... 17
11. Children's Well-being and Financial Security..... 19
12. Children's Well-being and Access to Healthcare..... 20
13. School Lunch Program Eligibility..... 22
14. Teen Birth Rates and Temporary Aid to Needy Families..... 24
15. Youth Risk Behaviors..... 25
16. Some Issues Perceived as Problems in Public High Schools..... 27
17. School Drug and Violence Prevention..... 29
18. Educational Attainment of Maine's Adults..... 31
19. Projected Educational Attainment of Maine Public School Ninth Grade Students..... 32
20. Rewards of High School Completion and Higher Education Degree..... 33
21. Early Childhood Education……..... 34

Resource Indicators..... 36

22. Per Pupil Operating Expenditures..... 37

23. Education Expenditures by Category..... 38

24. Special Education Expenditures..... 39

25. Transportation of Public School Students..... 40

26. Construction of Public Schools..... 42

27. District Governance Structures…..... 43

28. School Type, Grade Span Configuration, and Average Enrollment..... 44

29. Pupil - Teacher Ratios..... 46

30. Staff - Administrator Ratios and Staff - Teacher Ratios..... 48

31. Salaries of Teachers and Administrators..... 49

32. Ages of Teachers and Administrators..... 50

33. Years of Experience of Full-time Teachers and Administrators..... 51

34. Gender of Full-time Teachers and Administrators..... 52

35. Educational Attainment of Teachers and Administrators..... 53

36. Teachers Rank Professional Development Activities…….. 54

37. Instructional Time in Maine Schools..... 56

38. How Teachers View Their Schools as Able to Achieve *Learning Results*……. 57

39. Time Spent on Learning Results Content Areas in Elementary Schools..... 58

40. Minimum Time Requirements for Homework in High School..... 59

41. Percent of High School Students Completing Mathematics and Science Courses..... 60

42. Percent of High School Students Completing Advanced Placement Courses..... 61

43. Educator Shortages in Maine's Public Schools..... 63

44. Cocurricular and Extracurricular Opportunities..... 65

45. Reading Recovery..... 67

Results Indicators..... 68

46. Maine Educational Assessment..... 69

47. Scholastic Assessment Test..... 72

48. Advanced Placement Test..... 74

49. National Assessment of Educational Progress..... 75

50. Graduation Rate for Maine's High School Seniors..... 77

51. Yearly High School Dropout Rate..... 78

52. Post-Secondary Education..... 80

53. Aspirations of Students Taking the SAT..... 82

54. Maine's College Graduates: *Where They Go and Why*..... 83

Endnote..... 84

References..... 85

Appendices..... 88

APPENDIX A: Excerpts from Legislation Establishing the Maine Education Policy Research Institute L.D. No. 1124

APPENDIX B: Recent Publications

Introduction

Education Indicators are facts and statistics that help to describe a public education system. They are tools which are useful in examining and measuring the effectiveness of the system. Examples include information such as the amount of local funds raised to support local schools, per pupil expenditures, pupil-teacher ratios, and student achievement results. This publication contains a series of indicators which will help interested citizens, policymakers, and legislators understand the many components of the K-12 Maine public education system.

In addition to providing the most current information available for each indicator, historical information and comparable data from the Northeast region and the nation are presented whenever possible. Readers are reminded that the data presented in this report are from a variety of sources, and that the most recent year may vary by indicator. Although each indicator is independent, many are interrelated and therefore require a critical analysis by the reader.

The Condition of K-12 Public Education in Maine 2003 is comprised of three categories of indicators: *1) Context, 2) Resources, and 3) Results indicators*.

Context Indicators describe community and societal characteristics which may have an impact on student learning. Context indicators include information such as community wealth, poverty level, tax burdens, local and state revenues, and school enrollment.

Resource Indicators describe school resources which may influence student learning. These indicators include staff and student characteristics, education expenditures, and information about school programs and services. Resource indicators help describe how education resources such as staff and facilities, student-teacher ratios, course offerings and student services are utilized in providing education to Maine's K-12 students.

Results Indicators provide tools to assess the productivity of education in Maine. Results indicators include, among others, student achievement results in several assessments, student attitudes and aspirations, and post-secondary education. This information helps to describe how well Maine schools have succeeded in educating Maine's youth.

General Information about K-12 Public Education in Maine

While Maine's total population has remained relatively steady (1.2 million), public school enrollment has been steadily declining since 1996-97 to 204,332 students in 2002-03. An additional 16,858 students are enrolled in private schools and 4,595 students were home schooled in 2001-02. Maine's 285 school administrative units have a total of 697 public schools in various grade span configurations. Total education expenditures in 2002-03 were approximately $1.9 billion. On a per-pupil basis, (excluding major capital outlay, transportation, and debt service), Maine's average per pupil operating expenditure was $6,640 in 2001-02. Finally, close to one out of every three Maine students was eligible to receive free or reduced price lunch in 2002-03.

Maine's students continue to be among the top performers in the National Assessment of Educational Progress (NAEP). In mathematics, both fourth and eighth graders scored above the national average scores for 2003. In reading, Maine's fourth and eighth grade students ranked sixth in the nation on the 2003 NAEP Reading Test. Both grades scoring higher than the national average, but slightly lower than the regional average.

Results of the MEA, which measures achievement of Maine's Learning Results, showed a significant majority of students partially meeting, meeting, or exceeding the Learning Results standards in 2002-03 in reading, writing, social studies, and health. While approximately one-third of students struggled with mathematics, science, and visual and performing arts. Maine students scored below the national average in mathematics, and slightly below in verbal, on the 2003 Scholastic Assessment Test (SAT). Achievement in qualifying scores on Advanced Placement examinations now slightly exceeds the national average. In 2002, approximately 69 percent of Maine's public high school graduates intended to enroll in some type of post-secondary education program. More information about these and other facts are provided in the following pages.

I. Context Indicators

Context Indicators describe community and societal characteristics of the educational environment which may have an impact on student learning. This section provides information on the following indicators:

1. Per Capita Personal Income
2. Poverty Rate
3. Tax Burden
4. Property Valuation
5. Local Revenues
6. Education Expenditures
7. Public School Student Enrollment
8. Private School and Home School Student Enrollment
9. Limited English Proficient Student Enrollment
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19. Projected Educational Attainment of Maine Public School Ninth Grade Students
20. Rewards of High School Completion and Higher Education Degree
21. Early Childhood Education

1. Per Capita Personal Income

Per capita personal income (PCPI) is one way to describe the general economic well-being of Maine and its communities. It is an important indicator for understanding the financial capacity of the state of Maine and its communities to support schools. PCPI is calculated by dividing all personal income from all sources by the total population of that area. Table 1 and Figure 1 show a comparison of per capita personal income averages for Maine, New Hampshire, Vermont, and the United States during the last five years. This is based on data released by the Bureau of Economic Analysis in 2003. According to the Bureau, the estimated per capita personal income for Maine in 2002 is $27,804, ranking Maine 34th in the nation, or approximately $3,028 less than the national per capita personal income, $30,832. New Hampshire is ranked 7th in the nation, while Vermont is ranked 25th.

The final column of the table shows the percentage increase of per capita personal income from 1998 to 2002 after adjusting for inflation.

As indicated by the U.S. Bureau of Economic Analysis, the disparity of income within Maine is quite sizeable and varies considerably between counties. Table 2, on the next page, shows 1996-2001 per capita personal income for all Maine counties. In 2001 (the most recently available county data) the average county per capita personal

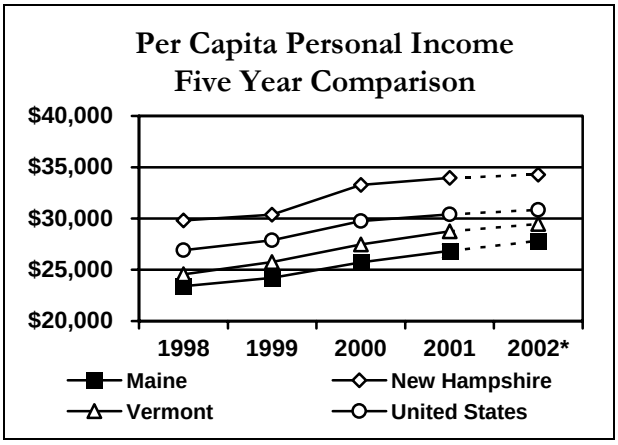


Figure 1: Source: U.S. Bureau of Economic Analysis, 2003

Table 1: Regional and National Per Capita Personal Income, 1998-2002*

State	1998	1999	2000	2001	2002*	% Increase after adjusting for Inflation 1998-2002
Maine	**$23,404**	**$24,218**	**$25,732**	**$26,853**	**$27,804**	**7.6%**
New Hampshire	$29,817	$30,377	$33,266	$33,969	$34,276	4.2%
Vermont	$24,547	$25,757	$27,465	$28,756	$29,464	8.8%
United States	$26,893	$27,880	$29,760	$30,413	$30,832	3.5%

Source: U.S. Bureau of Economic Analysis, 2003. *** PCPI *estimated* figures for 2002**

income ranged from a low of $20,373 for Somerset County to a high of $34,041 for Cumberland County. Interestingly, not only is Cumberland County ranked 1st in Maine in PCPI, but it is also ranked 143rd of all 3,110 counties in the entire United States.

Seven counties in Maine had incomes below $25,000 and nine had incomes above $25,000. The average income in Maine's poorest county was only 59.9 percent of the average per capita personal income in Maine's wealthiest county in 2001.

Since 1996, Maine's per capita personal income grew by 12.4 percent (after adjusting for inflation) compared to a national increase of 11.0 percent. During the same time, Waldo County showed the highest per capita personal income growth rate within the state while Oxford County showed the lowest growth rate.

Table 2: Maine Per Capita Personal Income by County, 1996-2001

Area	1996	1997	1998	1999	2000	2001	% Increase after adjusting for Inflation 1996-2001
Androscoggin	$20,553	$21,592	$22,463	$23,389	$24,637	$25,752	11.0%
Aroostook	$17,163	$17,661	$18,887	$19,649	$20,840	$21,817	12.6%
Cumberland	$26,295	$27,710	$29,309	$30,373	$32,036	$34,041	14.7%
Franklin	$17,972	$19,601	$19,461	$20,074	$21,477	$22,295	9.9%
Hancock	$22,019	$22,737	$24,400	$25,133	$26,060	$27,889	12.2%
Kennebec	$21,481	$22,277	$23,396	$24,086	$25,492	$26,545	9.5%
Knox	$22,300	$22,825	$24,495	$25,355	$27,019	$28,367	12.7%
Lincoln	$22,488	$23,855	$24,720	$25,174	$26,678	$27,441	8.1%
Oxford	$17,540	$18,346	$19,061	$19,347	$20,591	$21,272	7.4%
Penobscot	$19,512	$20,461	$21,605	$22,287	$23,889	$25,097	14.0%
Piscataquis	$16,625	$17,519	$18,443	$18,904	$20,052	$21,139	12.7%
Sagadahoc	$21,984	$22,800	$24,121	$24,755	$26,395	$27,232	9.7%
Somerset	$16,430	$16,813	$17,796	$18,604	$19,942	$20,373	9.9%
Waldo	$17,685	$18,377	$19,532	$20,333	$22,241	$23,505	17.7%
Washington	$16,839	$17,714	$18,837	$19,540	$20,521	$21,255	11.8%
York	$21,120	$22,109	$23,363	$24,303	$25,850	$26,267	10.2%
Maine	**$21,163**	**$22,134**	**$23,404**	**$24,218**	**$25,732**	**$26,853**	**12.4%**
United States	$24,270	$25,412	$26,893	$27,880	$29,660	$30,413	11.0%

Source: U.S. Bureau of Economic Analysis, 2003. *** PCPI *estimated* figures for 2002**

2. Poverty Rate

Poverty is associated with difficulties in health, education, emotional well-being, and delinquency. Children in poverty are more susceptible to health risks which eventually may lead to chronic diseases in adulthood, according to the U.S. Department of Health and Human Services. Also, the U.S. Bureau of the Census reports that children living in families who are poor are more likely than children living in other families to have difficulty in school, to become teen parents, and, as adults, to earn less and be unemployed more.

The federal government defines the poverty threshold for families as the level of income which is below a livable wage. The poverty level or threshold is determined by the number of members in a family. Table 3 provides 2002 figures from the U.S. Bureau of the Census regarding the weighted average thresholds of poverty.

Table 3: Thresholds of Poverty - 2002

Number in Family	Annual Earnings
1 Person	$9,183
2 Persons	$11,756
3 Persons	$14,348
4 Persons	$18,392

Source: US Bureau of the Census, 2003.

The most recent information from the U.S. Census Bureau indicates that approximately 140,000 people in Maine were living below the poverty threshold in 2002. This was 11.1 percent of the total population, compared to the national level of 12.4 percent.

Twenty states had poverty rates lower than Maine's. The chart below shows the 2-year average poverty rate for Maine and the United States for 2000-2001 and

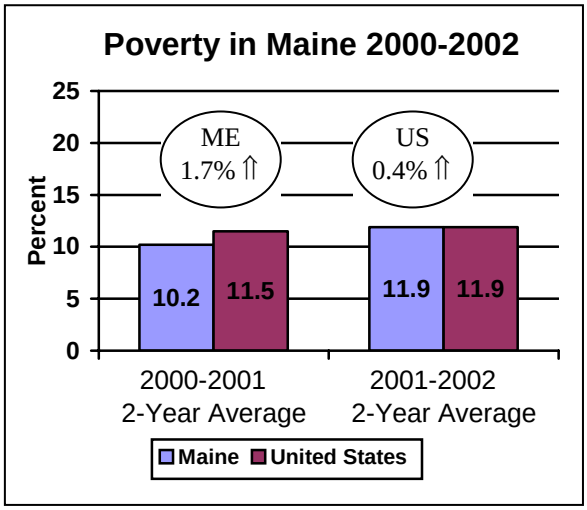


Figure 2: Source: US Bureau of the Census, 2003.

2001-2002. These numbers indicate an increase of 1.7 percent in Maine, compared to a 0.4 percent increase nationally. In fact, Maine is one of only 7 states whose increase in average poverty level was statistically significant while the other states remained basically unchanged.

According to the *2002 Annual Report Card on Poverty in Maine* issued by the Maine State Planning Office, an ongoing issue of considerable importance is the large

numbers of Maine citizens who existed close to the poverty line but who were not within the federally defined poverty threshold. In fact, most persons with income below 185-200 percent of the poverty level, or two times the poverty level, have inadequate resources to meet basic needs. According to the 2000 Census, nearly 30 percent of Maine's population had income below two times the federal poverty guideline, approximately 10 percent of whom are children.

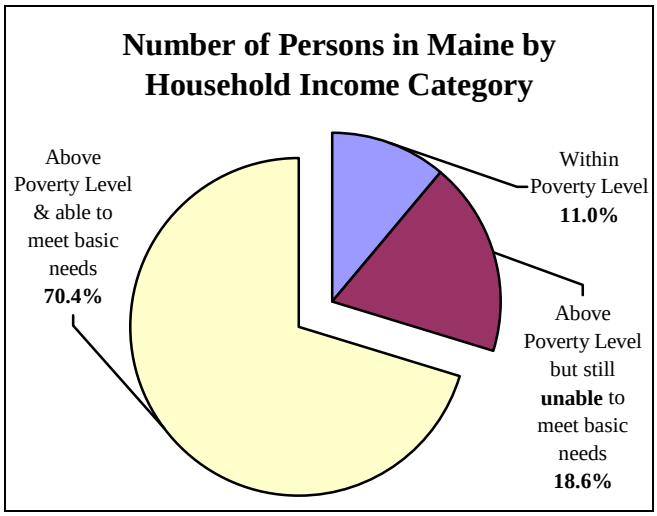


Figure 3: Source: Maine State Planning Office, 2003.

Further, the 2002 report stated that in the last decade, Maine's per capita income decreased from 91 percent of the national average to only 87 percent in 2001. Also, average annual pay of Maine's workers was only 80 percent of the national average, which is actually a slight improvement over the record low of 78 percent in 2000.

Another indicator of poverty that was reported by the Maine State Planning Office was a slight increase in the number of unemployed in Maine, from 4.1 percent in 2001 to 4.6 percent in 2002, compared to 5.8 percent nationally. The Center on Budget and Policy Priorities reported food stamp participation in Maine increased from 109,030 individuals in 2001 to 126,812 in 2002, an increase of 16.3 percent, compared to an increase nationally of only 9.5 percent.

The educational attainment of parents has also been linked to the poverty rate of children. As an example, the National Center for Children in Poverty reported that in 2002, 81 percent of children living in poverty had parents who did not hold a high school degree, compared with 54 percent whose parents had a high school degree, but no college education, and 22 percent whose parents had at least some college education.

3. Tax Burden

Tax burden refers to the total tax paid as a proportion of total income. The Maine State Planning Office calculates tax burden by the following method: It combines local and state taxes and divides by the total income received by the population of the state. This method shows how much money the population as a whole has from which to pay state and local taxes. State taxes include personal and corporate income and sales taxes, insurance taxes on hospitals, taxes on some industries, and fees collected for hunting and fishing licenses. Local taxes include auto excise, property, and watercraft taxes. Total income available to the population includes dividends, interest, rent, salaries, proprietors' income, social security and welfare income.

Table 4 shows the changes in state and local taxes as a percentage of income received by Maine people over the last five years. The last column indicates the combined total tax burden including federal taxes. Based on this information, in 2003 Maine ranked 1st in the country for tax burden as a percent of income when combining both state and local taxes; however, Maine ranks 9th in the country when combining state, local and federal taxes.

When comparing the tax burden in Maine with the tax burden in other New England states, Maine's rank depends on whether or not federal taxes are included in that percentage of income. Maine is ranked 1st in the nation in tax burden as a percentage of income when comparing just the state and local taxes; however, when adding in the federal tax burden, Maine ranked 9th, and Connecticut ranked 1st.

Table 4: State, Local, and Federal Taxes as a Percent of Income in Maine

Fiscal Year	Local Taxes	State Taxes	Combined State & Local Taxes	Combined State, Local & Federal Taxes
1999	4.49%	8.46%	12.95%	33.3%
2000	4.43%	8.47%	12.90%	34.1%
2001	4.42%	8.04%	12.46%	33.0%
2002	4.59%	7.60%	12.20%	30.6%
2003	4.73%	7.48%	12.21%	30.8%

Source: Maine State Planning Office, 2003 and Tax Foundation, 2003.

As can be seen by the following figures, tax burden based on income can be viewed in a variety of ways. For the people of Maine and New England, with the exception of New Hampshire, the state and local tax burden is above the national average of 9.7 percent. In fact, Maine's tax burden is a full 2.5 percentage points above the national average.

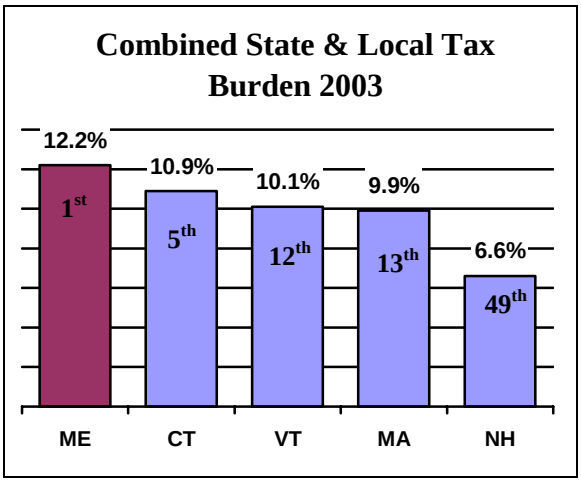


Figure 4: Source: Tax Foundation, 2003.

When factoring in federal taxes, the tax burden among New England states changes dramatically. With Connecticut's tax burden now ranked 1st in the nation and 5.4 percentage points above the national average of 30.0 percent, Maine's tax burden is now just 0.8 percent over the national average, and New Hampshire has suddenly jumped from being the second lowest in tax burden to 26th in the nation.

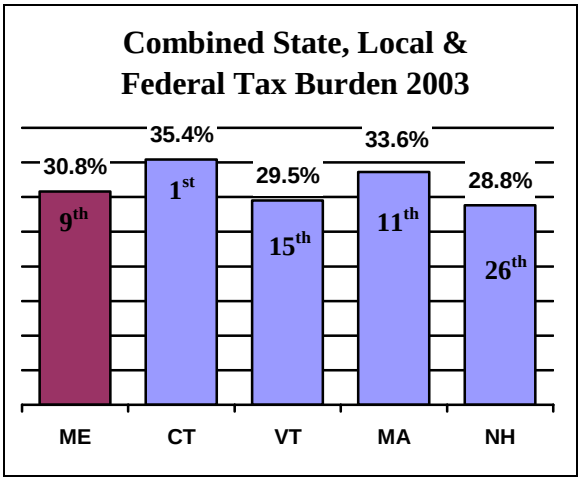


Figure 5: Source: Tax Foundation, 2003.

4. Property Valuation

Property tax is the major revenue source used by local communities to fund their schools. Property taxes are based on the value of property. The state assessor establishes the annual State Property Valuation for each community based on the previous year's real estate sales. The valuation calculated by the state is then divided by the number of public school students to acquire a valuation per pupil rate for each community. The per pupil valuation, as reported in Table 5, is the predominant factor, along with median household income, in establishing the community's ability to raise local funds for education.

The data in Figure 6 indicate that the per pupil valuation has been steadily rising over the past six years, with an overall increase of 34.7 percent from 1993-94 to 2002-03 (not adjusted for inflation). Since 1993-94, the per pupil student valuation has increased from $300,468 to $460,191 in 2002-03.

Table 5: State Per Pupil Valuation

Valuation Year	Valuation
1993-1994	$300,468
1994-1995	$302,006
1995-1996	$300,424
1996-1997	$303,980
1997-1998	$310,500
1998-1999	$320,682
1999-2000	$354,880
2000-2001	$378,625
2001-2002	$412,835
2002-2003	$460,191

Source: Maine Department of Education, 2002-03.

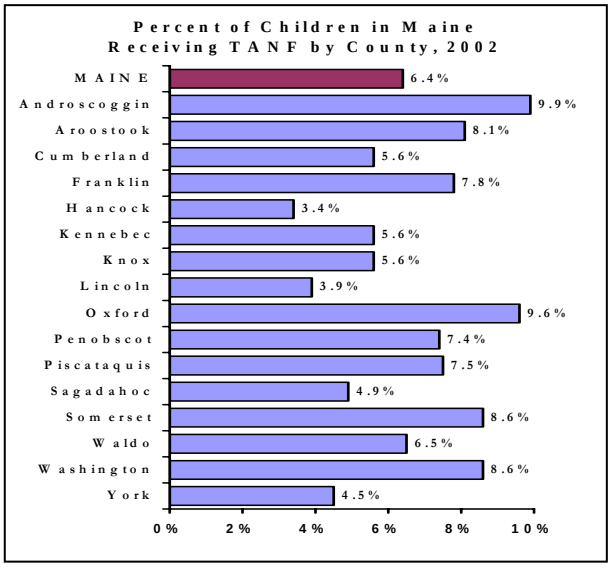


Figure 6: Source: Maine Department of Education, 2002-03

5. Local Revenues

Education in Maine is primarily funded through local property taxes and state aid to local school districts. In 2002-03, 57.4 percent of education funds came directly from local property taxes, while 42.6 percent was provided through state subsidy, according to the Maine Department of Education.

Local revenues, made up mainly of property taxes, provide the local portion of all education expenditures. Local property taxation is expressed in terms of mills which represent the dollars of property tax raised per $1,000 of property valuation. The number of mills to be raised, or mill rate, is determined by each community by dividing the total revenue to be raised by the total valuation of the community. This mill rate is then applied to the valuation of each property.

For example, a community with a valuation of $50,000,000 which needs to raise $600,000 in property tax would need a mill rate of 12 ($600,000/$50,000,000=.012 or $12.00 per $1,000 of value). The property tax for a home valued at $100,000 would therefore be $1,200. Expressed as mills, Table 6, and Figure 7 on the next page, presents the full value property tax rate for all Maine communities (used to fund all community services, including education) and the approximate average mills raised to fund only education.

Table 6: Total Average Mills Raised by Communities and Average Mills for Education

School Year	Average Total Mills Raised	Average Total Mills Raised for Education	Percent of Total Mills for Education
1993-94	15.53	8.73	56.2%
1994-95	16.03	9.49	59.2%
1995-96	16.45	10.05	61.1%
1996-97	16.76	10.48	62.5%
1997-98	16.78	10.84	64.6%
1998-99	16.78	11.07	66.0%
1999-00	16.46	11.29	68.6%
2000-01	15.97	11.63	72.8%
2001-02	15.56	11.87	74.7%
2002-03	14.97	11.62	77.6%

Source: Maine Department of Education, Maine Revenue Services, 2003.

During 1993-94, the average number of mills raised for education was 8.73, compared to 11.62 mills in 2002-03. The percentage of mills raised for education, as a comparison of total mills raised by communities, has been steadily increasing over the past ten years from 56.2 percent in 1993-94 to 77.6 percent in 2002-03.

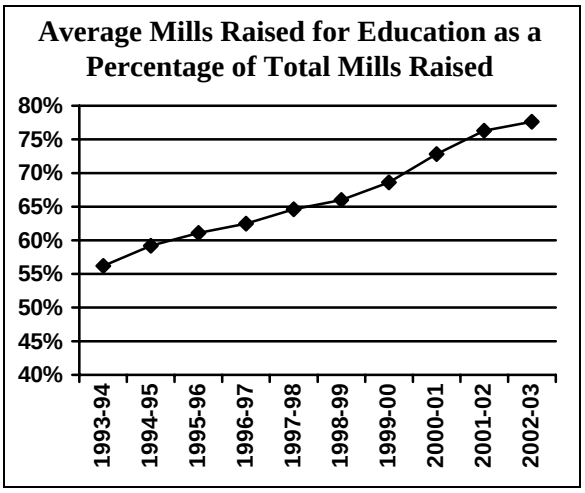


Figure 7: Source: Maine Department of Education, Maine Revenue Service, 2003.

The state establishes a minimum amount of allocation to be raised by communities to be eligible for state education subsidy. Those communities that do not raise the minimum local level of mills become ineligible for state subsidies under the current funding formula. Most communities raise the minimum level as well as local additional, or optional, funds for education. The range in mills raised for education by individual communities and municipalities is large, varying in 2002-03 from a low of 0.18 mills to a high of 19.04 mills.

6. Education Expenditures

Funding of education in Maine is primarily a shared responsibility among the state and local governments. According to the Maine Department of Education, Maine spent approximately $1.9 billion on K-12 education during the 2002-03 school year. As reported in Table 7, this was an increase of $738 million, or 58.7 percent, since 1993-94 (not accounting for inflation).

The concept underlying the school funding formula is "pupil equity": the amount of funding available to support each student's education should not be dependent upon the wealth of the student's place of residence. The "pupil equity" principle is balanced by the principle of "taxpayer equity" in that the school funding formula prescribes an amount of money that must be raised locally. The state appropriation, General Purpose Aid (GPA), is then distributed through the school funding formula to each school administrative unit; this includes a method of calculating a minimum subsidy so that all units will receive some state aid for education.

The state share is determined by state law which both specifies the education costs that are to be subsidized, and adjusts the state share based on the amount of state funds available in GPA. Operating costs, program costs, and debt service costs are paid by a combination of state and local funds. The state pays all of the costs associated with adjustments for expenses incurred by certain school units for special education costs of state wards, geographic isolation, private school services, ESL, and out-of-district placements. Transportation for after-school activities and field trips, unapproved debt service and capital outlay, and unapproved leases are all examples of expenditures which are paid entirely by the local unit, also known as local funding without state participation.

Table 7: Maine Education Expenditures (in Millions)

Revenue Source	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003
State*	$623.5	$654.2	$662.1	$680.4	$712.9	$781.2	$810.9	$864.3	$882.7	$899.1
Local	$579.3	$616.6	$653.5	$687.2	$722.4	$752.9	$788.9	$840.9	$909.3	$968.4
Federal	$55.7	$54.9	$56.4	$58.1	$67.2	$82.9	$96.2	$103.5	$115.2	$128.9
Total Dollars	$1,258	$1,325	$1,371	$1,425	$1,502	$1,616	$1,696	$1,808	$1,907	$1,996

Source: Maine Department of Education, *Statewide School Finance Data*, 2003.
* includes retirement, subsidy and other state grants.

The Education Commissioner's Recommended Funding Level (RFL) percentages for the past ten years, as well as the actual state and local percentage levels, are listed in Table 8. While the RFL remained at approximately 57 percent between 1993-94 and 1995-96, it has been fluctuating since, and is currently at a ten-year low of 47.6 percent. Since 1993-94, the state's share of the actual costs has declined from 47.3 percent to 42.6 percent in 2002-03. Correspondingly, the local community contribution, including local option funds for schools, has increased from 52.7 percent to 57.4 percent in 2002-03, as shown in Figure 8.

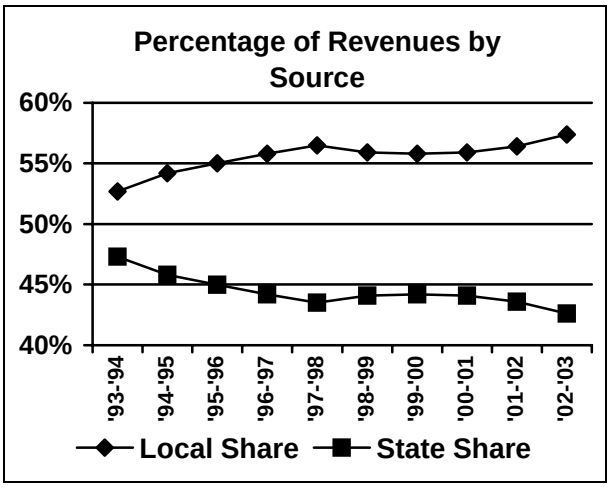


Figure 8: Source: Maine Department of Education, 2003.

Table 8: Percentage of Education Revenues by Source

Revenue Sources	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003
Recommended Funding Level	56.8%	57.0%	57.0%	52.2%	52.4%	53.1%	53.6%	50.4%	49.1%	47.6%
State Share of Actual Costs	47.3%	45.8%	45.0%	44.2%	43.5%	44.1%	44.2%	44.1%	43.6%	42.6%
Local Share of Actual Costs	52.7%	54.2%	55.0%	55.8%	56.5%	55.9%	55.8%	55.9%	56.4%	57.4%

Source: Maine Department of Education, *Statewide School Finance Data*, 2003.

7. Public School Student Enrollment

The Maine Department of Education reported that in 2002-03 there were 204,332 children enrolled in Maine K-12 public schools. This represents an overall decrease of 4.0 percent, or 8,516 students, since 1993-94. However, Figure 9 shows a slight increase in student enrollment between school years 1993-94 to 1996-97.

According to the U.S. Department of Education, while national public school enrollment is expected to increase less than one (0.2 percent) between 2003 and 2012, Maine's enrollment is expected to ***decrease*** by approximately 9.1 percent during the same time period.

Table 9 on the following page shows changes in Maine public school enrollment by county between the 1993-94 and 2002-03 school years. Only two counties showed an increase in the last ten years: Cumberland County experienced the highest increase, 6.6 percent, and York County, 5.5 percent. However, in the last five years they also experienced a decrease in enrollment. All other counties have shown a steady decline in student enrollment between 1993-94 and 2002-03.

The last column in Table 9 reports the projected changes in county student populations for the next ten years from 2003 to 2012, according to the Maine State Planning Office. As shown in the table, all sixteen counties are projected to ***decline*** in student enrollment.

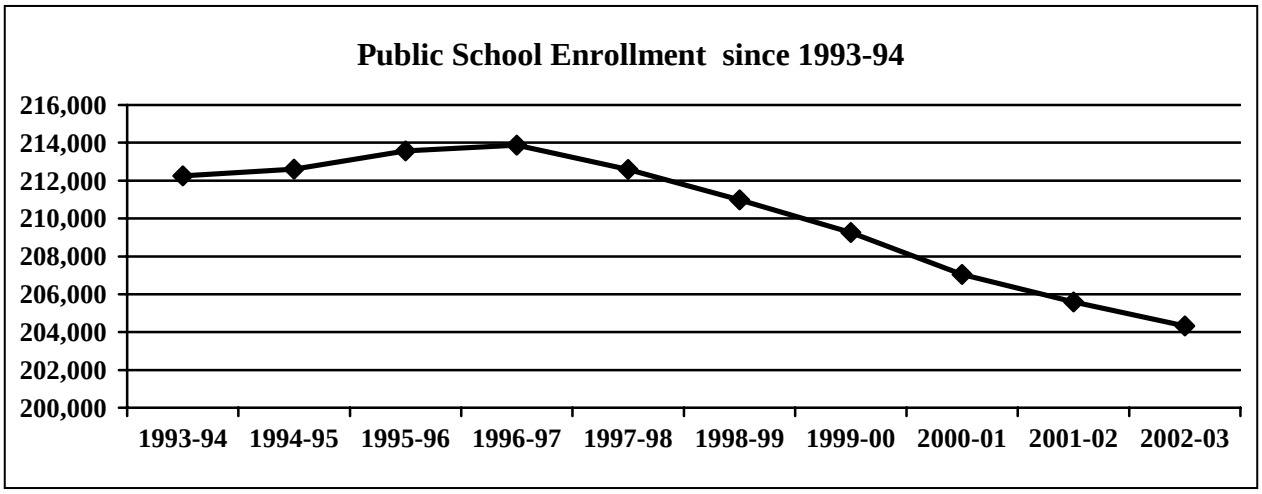


Figure 9: Source: Department of Education, 2003.

Table 9: Public School 1992-93 & 2002-03 Fall Enrollments by County

County	Enrollment 1993-94	Enrollment 2002-03	Five Year Enrollment Changes	Ten Year Enrollment Changes	Projected Change in Student Enrollment 2003-2012
Androscoggin	17,281	16,698	-1.1%	-3.4%	-12.2%
Aroostook	15,150	11,975	-8.9%	-21.0%	-15.4%
Cumberland	39,728	42,361	-0.8%	+6.6%	-3.3%
Franklin	5,486	4,098	-23.3%	-25.3%	-13.3%
Hancock	8,229	7,508	-8.3%	-8.8%	-9.0%
Kennebec	20,197	18,831	-4.7%	-6.8%	-10.4%
Knox	5,887	5,617	-1.5%	-4.6%	-10.1%
Lincoln	5,303	4,852	-7.8%	-8.5%	-11.5%
Oxford	10,037	9,755	-3.2%	-2.8%	-9.2%
Penobscot	25,127	23,438	-3.7%	-6.7%	-12.0%
Piscataquis	3,363	2,760	-9.5%	-17.9%	-18.2%
Sagadahoc	6,478	6,377	-4.0%	-1.6%	-10.2%
Somerset	9,143	8,470	-0.7%	-7.4%	-17.7%
Waldo	5,763	5,475	-5.9%	-5.0%	-7.6%
Washington	6,214	4,915	-9.3%	-20.9%	-16.3%
York	28,820	30,397	-0.2%	+5.5%	-4.8%
Totals	**212,853**	**204,337**	**-3.2%**	**-4.0%**	**-9.1%**

Source: Maine Department of Education and Maine State Planning Office, 2003.

8. Private School and Home School Student Enrollment

Private School: Since 1993-94, when 13,049 students were enrolled in approved K-12 private schools in Maine, the number had increased to 17,530 in 2000-01, and has decreased slightly since then to 16,858 in 2002-03.

Figure 10 shows the ten year enrollment trend. Although the ten year change shows an increase of 29.2 percent statewide, the last two years have shown a 4.0 percent decrease. This could be the result of declining student populations throughout the state, as indicated in the public school student enrollment declining numbers.

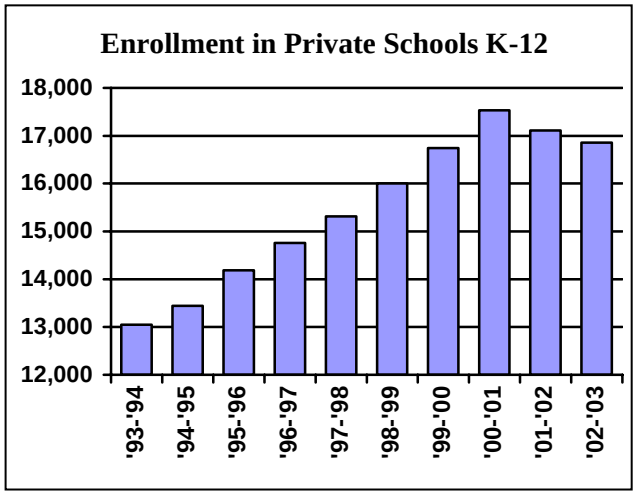


Figure 10: Source: Maine Department of Education, 2003.

Home School: In 1990 the number of students who were home schooled was approximately 1,500. Figure 11 shows that in 1995-96, 3,394 students were home schooled, more than double the number in 1990. Since then those numbers have been steadily increasing to a current state total of 4,595 students in 2001-02 (most recent available data), an increase of 35.4 percent since 1995-96.

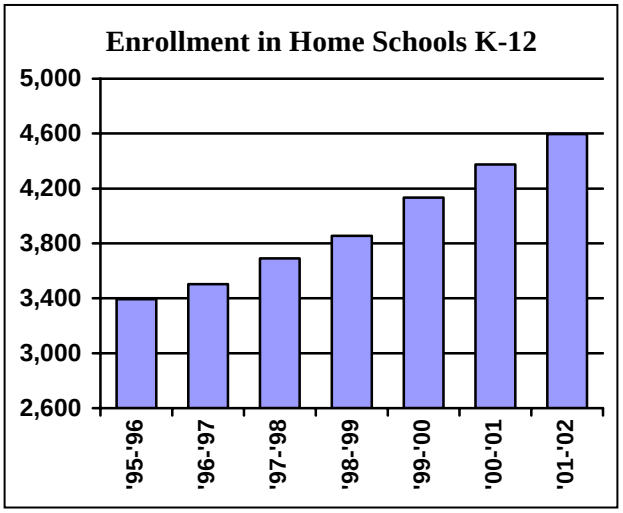


Figure 11: Source: Maine Department of Education, 2003.

9. Limited English Proficient Student Enrollment

In 2002-03, the public school population in Maine included 4,409 students who spoke a total of 76 different heritage languages. Of these students, 3,006, or 68.2 percent, were Limited English Proficient (LEP), according to the most recent available data from the Maine Department of Education. This designation refers to students whose native language is not English and who need instruction in language acquisition through such structured approaches as bilingual education or English as a second language. Enrollments have been fluctuating since 1994-95; however they have increased by 35.5 percent since 1998-99 for all students whose primary language is one other than English. During the same period, as shown in Figure 12, the number of students who are Limited English Proficient has increased by 19.4 percent.

There were 100 school districts that reported enrollments of LEP students at various levels of concentration, according to 2002-03 data. For instance, Portland had the highest number, 974 LEP students. The next highest numbers of LEP students were in Lewiston (279) and Madawaska (182). Staff costs in 2002-03 were approximately $7.1 million. This breaks down to $5.09 million local and $2.05 million state.

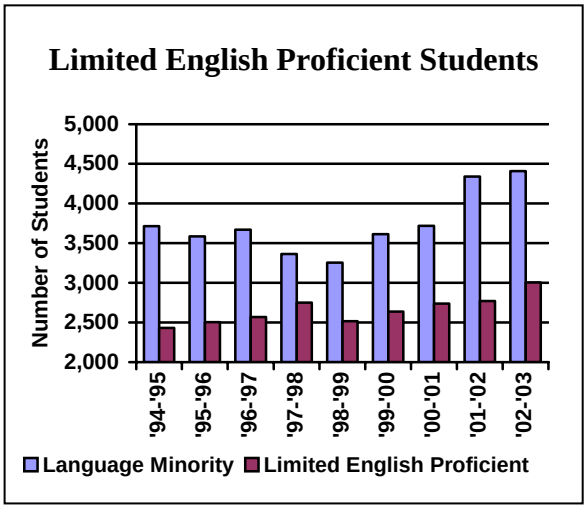


Figure 12: Source: Maine Department of Education, 2003.

10. Special Education Student Enrollment

Passed in 1975 and revised in 1997, PL105-17 [the Individuals with Disabilities Education Act (IDEA-97)], directed public schools to enroll and educate all students with special needs and to meet these needs in the least restrictive environments. In Maine, students enrolled in special education range in age from 3 to 21 years. The numbers of students qualifying for special education services has increased from 29,363 in 1993-94 to 37,139 in the 2002-03 school year, an increase of 7,776 students. This has been a 26.5 percent increase over ten years in special education student enrollment as shown in Table 10 and Figure 13.

In 2002-03 the percent of all Maine students receiving special education services was approximately 18.1 percent. (Note: Data reflects special education enrollment ages three through 21 years while regular education enrollment in Maine is for students ages four through 20 years old.) The most recent national information available was for the 2001-02 school year. At the national level, 13.3 percent of students, ages six through 21, were served under the Individuals with Disabilities Education Act.

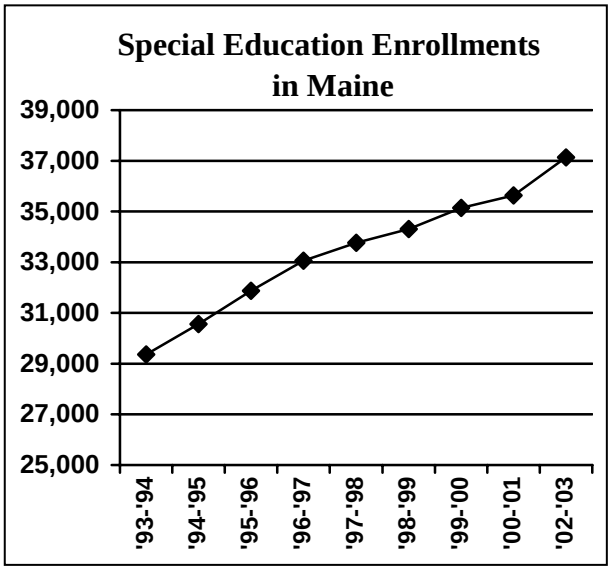


Figure 13: Source: Maine Department of Education, 2003.

Table 10: Special Education Enrollment in Maine

Students	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003
Total Public School	216,943	217,394	218,462	218,560	217,570	216,121	214,984	212,957	211,058	204,853
Total Special Education	29,363	30,565	31,870	33,055	33,762	34,306	35,139	35,633	36,580	37,139
Percentage Special Education	13.5%	14.1%	14.6%	15.1%	15.5%	15.9%	16.0%	16.1%	17.3%	18.1%

Source: Maine Department of Education. Office of Special Services, 2003.

Maine students receive special education services for one of fourteen classification categories. In 2002-03, two types of disabilities accounted for 60.6 percent of the students served in Maine: Specific Learning Disability (34.4 percent), and Speech and Hearing Impairment (26.2 percent).

Table 11 illustrates numbers and percentages of students enrolled in special education relative to each county's total student population. The variations range from a low of 11.6 percent in Piscataquis County to a high of 23.3 percent in Somerset County.

Table 11: Numbers and Percents of Students with Disabilities by County, 2002-03

County	Number of Students in Special Education	Number of Students Enrolled in Public Schools	Percent of County Student Population in Special Education
Androscoggin	3,137	16,698	18.8%
Aroostook	1,951	11,975	16.3%
Cumberland	6,309	42,361	14.9%
Franklin	759	4,098	18.5%
Hancock	1,601	7,508	21.3%
Kennebec	3,559	18,831	18.9%
Knox	1,189	5,617	21.2%
Lincoln	972	4,852	20.0%
Oxford	1,883	9,755	19.3%
Penobscot	4,105	23,438	17.5%
Piscataquis	321	2,760	11.6%
Sagadahoc	1,318	6,377	20.7%
Somerset	1,977	8,470	23.3%
Waldo	1,142	5,475	20.9%
Washington	1,062	4,915	21.6%
York	5,854	30,397	19.3%
Maine Total	**37,139**	**204,853**	**18.1%**

Source: Maine Department of Education, 2003.

11. Children's Well-being and Financial Security

Financial security impacts on children's psychological and emotional health, access to health care, and overall well-being. The likelihood of financial security increases for children who live with both parents, and decreases for children who live with only one parent. Further examination of children in the United States living in female-headed, single-parent households in 2002 showed that approximately sixty percent were poor, according to the U.S. Census Bureau's Annual Community Survey.

One way to compare this information to Maine's children is to examine the percentages of children living in single-parent families. The U.S. Census Bureau reported that in Maine, 12.5 percent of children lived in female-headed single-parent families in the year 2002. This compared to a 2002 national rate of 9.8 percent.

Also, according to the Annie E. Casey Foundation, more than eight percent of children in Maine lived in "high-risk" families in the year 2000. The "high risk" category applies to children who live in families with three of the following characteristics: (1) family with income below the poverty line; (2) family headed by a single parent; (3) family where no parent has full-time, year-round employment; (4) family whose household head is a high school dropout. Table 12 shows how Maine compared to Vermont, New Hampshire and the United States in the percent of high risk families for the years 1990 and 2000.

Table 12: Percent of Children Living in "High-Risk" Families

	1990	2000
Maine	10%	8%
New Hampshire	6%	5%
Vermont	8%	7%
United States	13%	12%

Source: Annie E. Casey Foundation, 2002.

12. Children's Well-being and Access to Health Care

Maine Children Without Health Insurance: Children who have health insurance are more likely than others to receive necessary and preventative medical and dental care. A recent survey conducted by the U.S. Bureau of the Census revealed that the number of uninsured children (those 18 years and under) declined from 11.1 million (15.4 percent) in 1998 to 8.5 million (11.6 percent) in 2002.

For Maine, the U.S. Bureau of the Census reported a decrease in the number of uninsured children since 1995, when 47,000, or 16.1 percent, were uninsured. According to findings from the U.S. Census Current Population Survey, 22,000, or 7.9 percent, of Maine's children lacked health insurance in year 2002. This was a slight increase over 2001 as shown in Table 13.

Table 13: Percent of Children Without Health Insurance, Maine & United States

Year	Maine	U.S.
1999	6.5%	12.6%
2000	8.0%	11.7%
2001	7.5%	11.7%
2002	7.9%	11.6%

Source: US Bureau of the Census, Current Population Survey, 2003.

Maine Children With Maine Care: The number of Maine children who meet eligibility levels for Maine Care (formerly Medicaid) also is an indication of children's health needs and access to health care. The Maine Department of Human Services reported that in fiscal year 2002, 27.5 percent, or 160,207 Maine children, aged 0-17 years, participated in Maine Care. The participation rate among counties varied greatly from a high of 58.8 percent in Washington County to a low of 24.9 percent in Cumberland County, as seen in Figure 14.

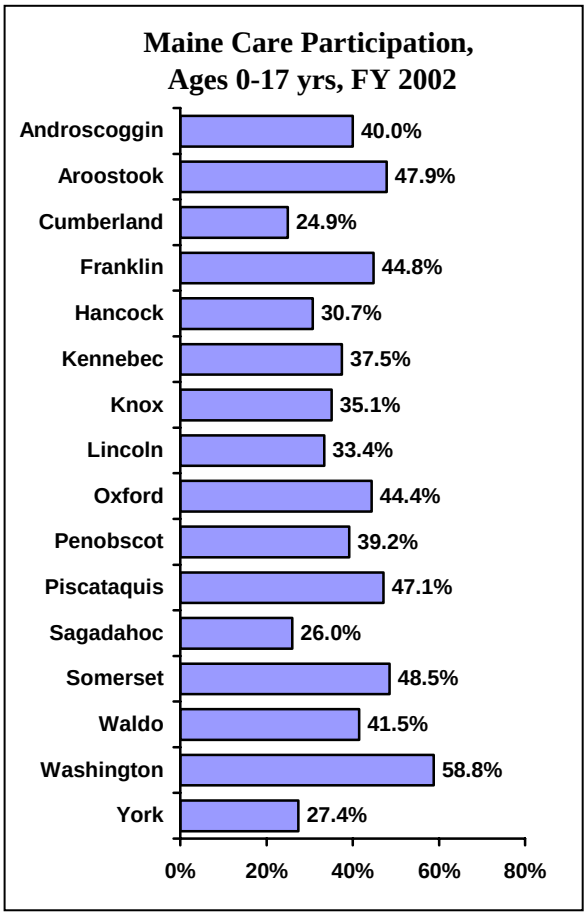


Figure 14: Source: Maine Department of Human Services, Bureau of Health, 2003.

Maine Children Immunizations: Another indicator of children's well-being is the level of immunizations. Maine performed better than the nation, which reported a 78.6 percent level of child immunizations in 2000. In the same year, according to the Center for Disease Control, 83.3 percent of Maine's children aged 19 to 35 months received immunizations against childhood diseases. With respect to immunizations of two year-olds, Figure 16 shows that the practice has increased significantly since 1991-92 when only 65.3 percent of two year-olds were immunized, to 82.2 percent in 2000-01.

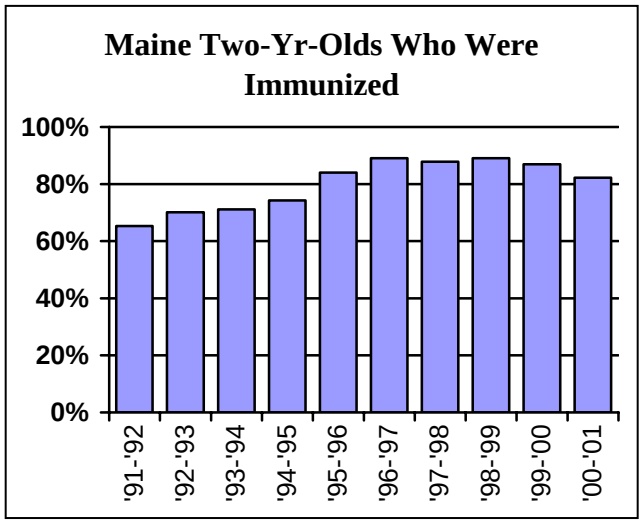


Figure 16: Source: Center for Disease Control, 2003.

13. School Lunch Program Eligibility

Subsidized school lunch programs help to meet the nutritional needs of children. In school year 2002-03, as reported by the Maine Department of Education, students who qualify for ***free*** lunches must live in a household earning no more than $23,530 for a family of four. To qualify for ***reduced*** lunches, students must live in a household earning no more than $33,485 for a family of four.

In 1993-94, 30.6 percent of the total public school population qualified for lunch subsidies. Figure 17 and Table 14 show that since 1993-94, the percentages fluctuated slightly between 30.0 percent and 31.8 percent, with a slight increase in 2001-02 and again in 2002-03.

Overall, the number of students qualifying for *reduced* lunches has increased, from 6.5 to 7.6 percent since 1993-94. The percent of students eligible for *free* lunches since 1993-94 has decreased slightly from 24.0 percent to 23.1 percent in 2002-03. In school year 2002-03 approximately 48,262 students were eligible for the ***free*** lunch program and 15,871 students were eligible for the ***reduced*** lunch program, for a total of 64,133 students, or 30.7 percent of the total school population of participating schools.*

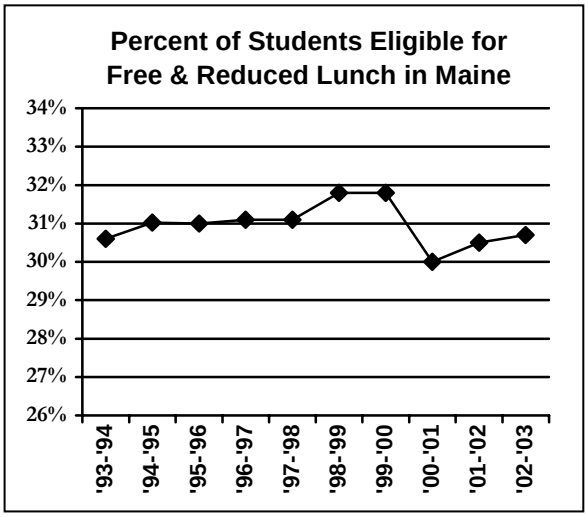


Figure 17: Source: Maine Department of Education, 2003.

Table 14: Students Eligible for Participation in Subsidized School Lunch Programs in Maine

Students Eligible	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003
For Free Lunches	24.0%	24.2%	24.2%	24.3%	23.8%	24.2%	23.9%	22.1%	22.9%	23.1%
For Reduced Lunches	6.5%	6.8%	6.8%	6.9%	7.3%	7.7%	7.8%	7.9%	7.6%	7.6%
Total Students	30.6%	31.0%	31.0%	31.1%	31.1%	31.8%	31.8%	30.0%	30.5%	30.7%

Source: Maine Department of Education, 2003.

Table 15 lists the percentages of students by counties in Maine who were eligible to receive subsidized school lunches in 2002-03. Cumberland County reported the lowest percentage of school lunch eligibility (19.4 percent) while Washington County reported the highest percentage (54.6 percent).

Table 15: Children Eligible to Receive Subsidized School Lunches, by County, 2002-03

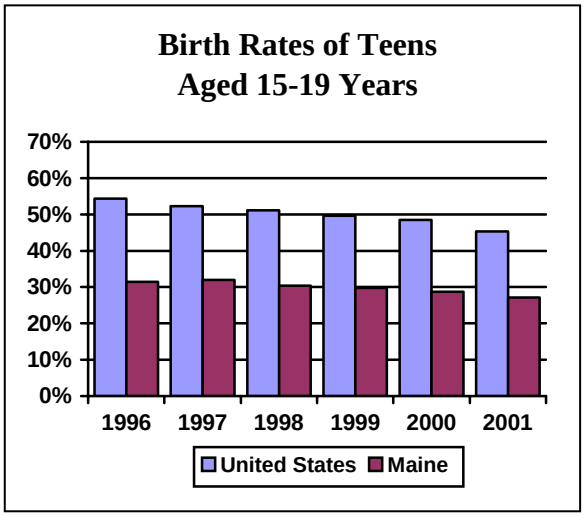
County	Students Eligible for Subsidized Lunches	Percent of Enrollees in School
Androscoggin	5,664	30.7%
Aroostook	5,336	43.8%
Cumberland	8,930	19.4%
Franklin	2,092	42.8%
Hancock	2,187	28.8%
Kennebec	6,127	29.9%
Knox	1,470	32.0%
Lincoln	1,480	30.2%
Oxford	4,041	38.0%
Penobscot	7,878	33.2%
Piscataquis	1,518	47.1%
Sagadahoc	1,540	29.5%
Somerset	3,844	42.4%
Waldo	2,303	42.2%
Washington	2,761	54.6%
York	6,962	22.9%
Maine	**64,133**	**30.7%**

Source: Maine Department of Education, 2003.

* All K-8 grades must participate in the school lunch programs. Schools with grades 9-12 may choose to participate. In Maine, all but 14 high schools participate.

15. Teen Birth Rates and Temporary Aid to Needy Families

Research indicates that children born to single teenage mothers are more likely to drop out of school, give birth out of wedlock, divorce or separate, and be dependent on welfare. In 2001, with 27.1 births per 1,000 women, Maine had the 4th lowest teen birth rate in the country, just below Massachusetts (25.0), Vermont (23.9), and New Hampshire (21.0). This reflected a significant decline in birth rates for Maine teenagers aged 15-19 years since 1991 when the rate was 43.5. Figure 18 provides a comparison of teen birth rates for Maine and the United States, according to the Centers for Disease Control and Prevention.



The level of public assistance provided through the program of Temporary Aid to Needy Families (TANF) is also important in discussions of children's well-being. According to the Maine Department of Human Services, Bureau of Family Independence, in September, 2002 there were 19,324 Maine children receiving TANF. This was 6.4 percent of all children in Maine aged 0-17 years. Figure 19 shows percentages of children on TANF by county. Androscoggin had the highest with 9.9 percent of its children on TANF while Hancock County had the lowest at 3.4 percent.

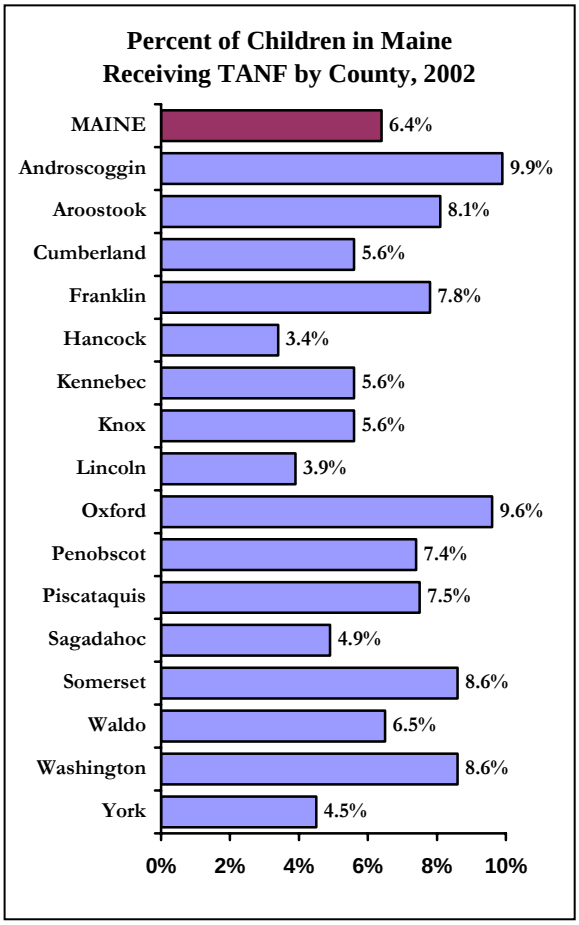


Figure 18: Source: Maine Department of Human Services, Bureau of Family Independence, 2003.

15. Youth Risk Behaviors

In its recent report on youth risk behaviors, the CDC revealed that the most prevalent causes of death in 10-24 year-olds were motor vehicle crashes (31 percent), homicide (15 percent), and suicide (12 percent). Health-risk behaviors, such as tobacco, alcohol, and other illicit drug use, also contribute to the leading causes of mortality and morbidity among youth and adults, and are often established during youth, according to the U.S. Centers for Disease Control and Prevention (CDC).

In terms of alcohol and other drug use, Table 16 shows how Maine's youth, 10-24 years old, compared to the alcohol and drug use behaviors of youth in New Hampshire, Vermont, and the United States. Maine's youth used marijuana, alcohol, and cocaine at slightly higher rates than the national youth population, as reported by CDC in year 2001.

A review of tobacco use, as reported in Table 17 on the next page, shows that Maine youth who smoked cigarettes during the past month were slightly fewer (25 percent) than their counterparts in the United States (28 percent). Maine youth (14 percent) smoked cigarettes on 20 or more days during the past month, slightly more than youth in Vermont (13 percent). Twelve percent of Maine youth smoked cigars; this was less than the national average (15 percent) and close to use reported in New Hampshire (13 percent) and Vermont (12 percent).

The risk behaviors, as shown in Table 18 on the next page, are associated with the leading causes of mortality and

Table 16: Alcohol and Other Drug Use Among Youth, 2001.

	United States	Maine	New Hampshire	Vermont
Drank alcohol during the past month.	47%	48%	52%	48%
Reported episodic heavy drinking during the past month.	30%	32%	32%	29%
Used marijuana during the past month.	24%	27%	28%	30%
Ever used cocaine.	9%	10%	11%	N/A
Ever sniffed or inhaled intoxicating substances.	15%	13%	15%	N/A

Source: U.S. Center for Disease Control and Prevention, 2002.

morbidity among youth. Slightly more Maine youth (15 percent) than national youth (14 percent) rarely or never used safety belts, while 27 percent rode with a drinking driver.

Fifteen percent carried a weapon, and 31 percent were in a physical fight during the past month. Nine percent of Maine youth reported they had attempted suicide during the past year, according to the U.S. Center for Disease Control.

Table 17: Tobacco Use Among Youth, 2001.

	United States	Maine	New Hampshire	Vermont
Smoked cigarettes during the past month.	28%	25%	34% (1999)	24%
Smoked cigarettes on 20 or more days during the past month.	14%	14%	19% (1999)	13%
Used smokeless tobacco during the past month.	8%	6%	6%	5%
Smoked cigars during the past month.	15%	12%	13%	12%

Source: U.S. Center for Disease Control and Prevention, 2002.

Table 18: Unintentional and Intentional Injuries among Youth, 2001.

	United States	Maine	New Hampshire	Vermont
Rarely or never used safety belts.	14%	15%	13%	11%
Rode with a drinking driver the past month.	31%	27%	28%	24%
Carried a weapon during the past month.	17%	15%	17%	N/A
Were in a physical fight during the past month.	33%	31%	31%	26%
Attempted suicide during the past year.	9%	9%	17%	7%

Source: U.S. Center for Disease Control and Prevention, 2002.

16. Some Issues Perceived as Problems in Public High Schools

Schools face many issues that may have an impact on safety and learning. The issues range from student tardiness and absenteeism to the more serious concerns of harassment, drug and alcohol use, and violence.

The Maine Education Policy Research Institute conducted a survey of the state's public school principals in an effort to discover the extent to which various problem areas impact Maine's schools. The following table reports the findings from the survey.

The problem areas included, among others, student tardiness, harassment among students, staff turnover and morale, and student and teacher safety. The survey asked high school principals to rate the extent to which each item was a problem in their schools. The scale was based on a continuum ranging from one to five, indicating not *a problem at all*, a *minor problem*, a *moderate problem*, a *serious problem*, or a *very serious problem*.

Table 19: Percent of High School Principals Who Perceive the Following Issues To Be a Problem in Their Schools

Issue	Moderate Problem	Serious Problem	Very Serious Problem	Total
Student tardiness	53.8%	12.3%	3.1%	69.2%
Student absenteeism	45.3%	10.9%	4.7%	60.9%
Cutting class	34.4%	0%	0%	34.4%
Student bullying	25.4%	11.1%	0%	36.5%
Harassment among students	37.5%	12.5%	0%	50.0%
Fighting/violence	4.8%	0%	0%	4.8%
Students' motivation to learn	48.4%	32.8%	1.6%	82.8%
Lack of discipline	14.1%	3.1%	0%	17.2%
Lack of parental involvement	47.6%	17.5%	0%	65.1%
Student/teacher safety	4.8%	0%	0%	4.8%
Teacher absenteeism	9.2%	1.5%	0%	10.7%
Teacher morale	20.6%	4.8%	0%	25.4%
Retaining highly skilled teachers	30.8%	10.8%	4.6%	46.2%
Funding curriculum enhancement activities	34.4%	17.2%	1.6%	53.2%

Source: Maine Education Policy Research Institute, 2002.

Of the 65 schools responding (approximately 60 percent of 109 high schools), the four items most frequently reported to be a moderate, serious, or very serious problem were students' motivation to learn (82.8 percent), student tardiness (69.2 percent), lack of parental involvement (65.1 percent), and student absenteeism (60.9 percent). Areas next identified as being moderate, serious, or very serious problems were funding curriculum enhancement activities (53.2 percent) and retaining highly skilled teachers (46.2 percent). Also, as represented in Table 18, the issues that were least often reported as being a problem were teacher absenteeism (10.7 percent), student and teacher safety (4.8 percent), and fighting and physical violence (4.8 percent).

17. School Drug and Violence Prevention

Results from the Youth Risk Behavior Survey associated with the U.S. Department of Health and Human Services revealed that in 2001, 8.9 percent of U.S. high school students reported that they had been threatened or injured with a weapon at school within the past year. Other findings were the following: 12.5 percent had been in a physical fight on school property within the past 12 months, and 6.4 percent said they had carried a weapon to school on one or more of the past 30 days.

In Maine, a partnership of Maine state and other agencies sponsored the Maine Safe and Drug-free Schools Data Collection Project in conjunction with the U.S. Department of Education. Data collected for the 2001-02 school year from 658 (99 percent) of the schools required to submit a report to the state, revealed that there were 10,358 reported incidents of prohibited behavior (personal offenses, criminal acts, policy violations, weapons-related incidents, and alcohol, tobacco, and other drug (ATOD) related incidents). Of the 10,358 reported incidents, 6,914 offenders were responsible, indicating a number of repeat offenders. The project further reported that there was an average of 5 incidents per 100 Maine students. Some incidents resulted in removal of student(s) from school. A total of 1,116 incidents, including assault and battery, fighting, threatening and harassing resulted in student(s) removal from school, according to data collected for school year 2001-02.

Other assessments of student behavior have been made. In its 2002 Maine Youth Drug and Alcohol Use Survey of 56,719 students, grades 6 through 12, the Maine Office of Substance Abuse found that a majority of students felt safe at school, with 17.4 percent reporting they felt unsafe. Males (18.8 percent), more than females (15.6 percent) were likely to report this. In relation to this, 14 percent of students reported that they had attacked someone with intention to harm. Male students (18.1 percent) were almost twice as likely as female students (9.5 percent) to report this.

According to the Maine Office of Substance Abuse, when 6-12th graders were asked if they had carried a handgun without permission during they past year, 4.5 percent reported they had done so. However, males (3.7 percent) were much more likely than females (0.8 percent) to have reported that they had carried a handgun without permission in the previous year.

The State of Maine has made efforts toward prevention of drug and alcohol abuse and other prohibited behaviors among school-age children. More specifically, the Maine Safe and Drug-Free Schools and Communities Act Program (SDFSCA) reported that in 2001-02, 89 percent of school districts and 95 percent of schools offered a total of 2,719 prevention-related programs, services, and activities (PSAs). This equaled a total of 3,149 programs at the school level serving an average of 154 students per program

The most prevalent PSA provided by schools was Drug Prevention Instruction, reported by 496 Maine schools (75%). Table 20 lists the specific types of activities and the percentage of schools providing them in 2001-02.

Table 20: Type PSAs Offered in Schools

Type of Program	% of Schools Offering
Drug prevention instruction	75%
Counseling & Referrals	64%
Violence prevention	58%
Conflict Resolution	57%
Special, one-time events	56%
Student Support Services	50%
Curriculum Development	37%
Before/After School Programs	33%
Community Service Projects	30%
Alternative Education Programs	14%
Services for out-of-school youth	4%

Source: Maine Safe & Drug-Free Schools Data Collection Project, 2003.

Schools in Maine also provided a total of 1,371 drug and violence prevention-related professional development programs to faculty and staff. A major focus of school prevention training for staff and faculty was violence, with 40 percent of all staff development programs emphasizing violence prevention, and 49 percent emphasizing both drug and violence prevention. Table 21 shows the top twelve staff development activities offered and the percentage of schools providing those activities.

Table 21: Staff Development Activities

Type of Activity	% of Schools Providing
Civil Rights/Diversity training	27.7%
Student Assistant Team training	27.1%
Violence prevention training	26.1%
Conflict Resolution & Mediation	24.3%
Crisis Mgmt./Emergency Planning	23.3%
Life Skills training	13.2%
Wellness	12.2%
DARE	12.0%
Peer Helpers/Peer Mediation	9.7%
Bullying Prevention	7.1%
Substance Abuse Awareness	6.8%
Mentoring	0.9%

Source: Maine Safe & Drug-Free Schools Data Collection Project, 2003.

18. Educational Attainment of Maine's Adults

The completion of high school and education beyond high school is an indicator of our national and state well-being. Maine and the nation both had lower percentages of completion in 2002 than in the previous year. The U.S. Census Bureau reported that in the year 2002, 86.2 percent of Maine's population 25 years old and older had attained a high school diploma. Maine was 3.6 percentage points higher than the national average (82.6 percent); however, unlike last year, lower than most other New England states, as shown in Figure 20.

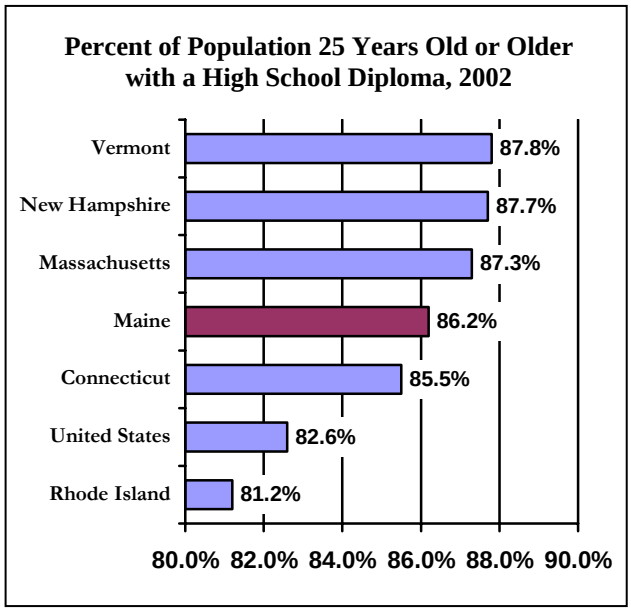


Figure 20: Source: U.S. Census Bureau, 2003.

When considering the population 25 years old or older with a bachelor's degree or higher, Maine was at 24.0 percent, 1.9 percent *lower* than the national average. All other New England states scored higher in populations of this age group who had attained bachelor's degrees or higher, as shown in Figure 21.

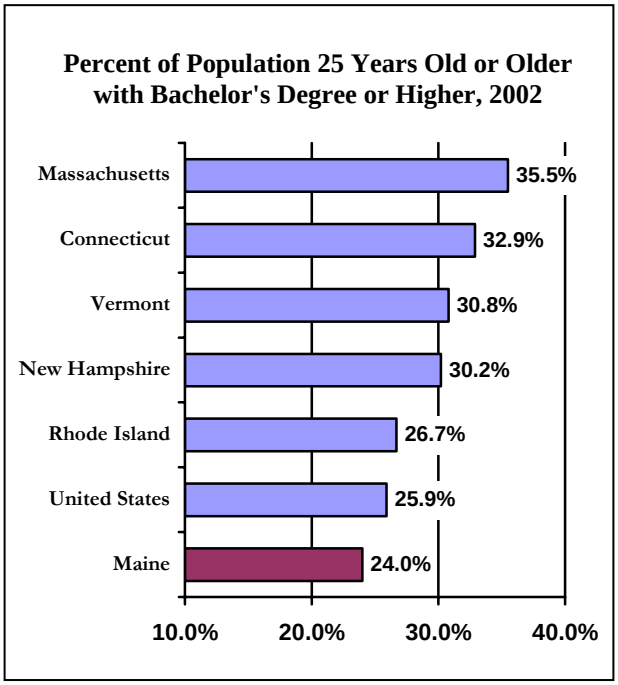


Figure 21: Source: U.S. Census Bureau, 2003.

19. Projected Educational Attainment of Public School Ninth Graders

As reported in the previous indicator, Maine ranks high in the nation in terms of the percent of those people 25 years old and older who have earned a high school diploma. However, in the same year (2001) only 24.1 percent of the same population had earned at least a bachelor's degree, according to the National Center for Education Statistics.

Why this large gap between the percent of high school graduates and bachelor's degree graduates? There are a myriad of reasons for the gap, some of which become more apparent if one examines available national and Maine trends. Figure 22 provides a projection of the educational attainment of Maine's 9th graders, given what we know about graduation and persistence rates.

As shown in figure 22, approximately 86 percent, or 15,368, of Maine's public school 9th graders are expected to graduate from high school four years later. Of these 15,368 graduates, typically a little over 66 percent report they plan on enrolling in some type of college or university. Breaking this down further, of those who report they plan to enroll, about 82 percent (8,345) do so. And of these 8,345 college freshmen, approximately 65 percent will earn a 2- or 4-year college degree by their mid to late 20's.

Thus, currently only about 30 percent of Maine's public school 9th graders are expected to complete a college or university degree program early in their lifetime. More may earn degrees later in life, but this information provides some insight as to why Maine ranks 28th in the country in terms of the percent of our population having earned a bachelor's or higher degree.

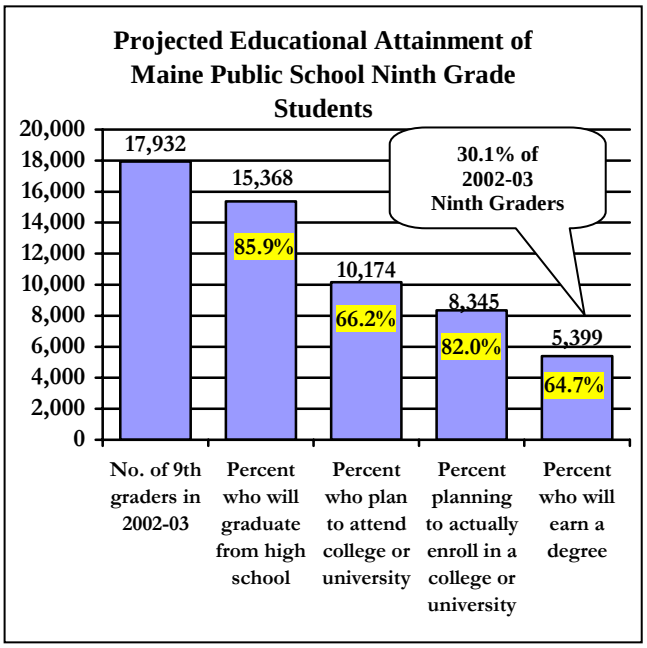


Figure 22: Source: Maine Department of Education, 2002. National Center for Education Statistics, 1999, 2000.

20. Rewards of High School Completion and Higher Education Degree

Although the rewards of attaining higher and higher levels of education are often intrinsic (personal satisfaction, social position, etc.), the extrinsic rewards are measurable. According to the U.S. Bureau of the Census, in 2001 the national median income of males 25 years old and older with less than a high school diploma was $22,047, or 72 percent of the median income ($30,659) of male high school graduates. For similarly-grouped females, the median income was $13,595, or 71 percent of the earnings ($19,286) of female high school graduates.

Further comparisons by educational attainment and income revealed that males with "some" college earned $35,756, and females earned $23,020. Males who had attained bachelor's degrees earned $50,730, while females with the same educational attainment had earned $33,662, as shown in Table 22.

Table 22: National Median Annual Income of Workers, Aged 25 and Older, by Level of Educational Attainment, 2001

Gender	Not a High School Graduate	High School Graduate	Some College	Associate's Degree	Bachelor's Degree	Master's Degree
Male	$22,047	$30,659	$35,756	$39,865	$50,730	$61,808
Female	$13,595	$19,286	$23,020	$25,810	$33,662	$41,790

Source: U.S. Bureau of the Census, Annual Demographic Survey, 2003.

21. Early Childhood Education

Studies have shown that participation in center-based early childhood care and education programs such as Head Start, nursery school, and prekindergarten not only provide childcare support for working parents, but also helps ready a child for elementary school. The National Center for Education Statistics reported that in 2000-01, 35 percent of the public elementary schools in the United States offered prekindergarten classes. In that same year, 10.7 percent of public elementary schools in Maine offered prekindergarten classes. Since then the numbers of schools offering prekindergarten classes in Maine has increased to 13.5 percent and the number of students enrolled in these programs has increased by 57.4 percent.

Recent studies have also shown that increasing the length of time kindergartners are in school can increase their cognitive, social and physical development. These children also have greater access to other school services, such as the school lunch program, guidance hours, special education services, and Title I services. In Maine, the number of schools offering all day kindergarten has increased significantly since 1999-00, as can be seen in Table 23 below. Consequently the number of children attending these all day programs has also increased from 10.3 percent in 1997-98 to 49.0 percent in 2002-03. Most recent national information available indicated that 54.0 percent of kindergarteners attended a full-day program in 1989-99.

Table 23: PreKindergarten and All Day Kindergarten in Maine

Year	Early Kindergarten and/or 4-Year Old Programs			All Day Kindergarten		
	Schools Offering	% of Total Elementary Schools	Students Attending	Schools Offering	Students Attending	% of Total Kindergarten Students
1997-98	43	n/a	969	n/a	1,634	10.3%
1998-99	54	n/a	1,078	n/a	2,290	14.4%
1999-00	57	10.0%	1,101	93	2,457	17.2%
2000-01	60	10.7%	1,062	153	4,463	32.4%
2001-02	75	12.8%	1,333	201	5,515	40.2%
2002-03	78	13.5%	1,525	220	6,729	49.0%

Source: Maine Department of Education, 2003.

While both Head Start and Prekindergarten are designed to provide children with experiences that will prepare them for school, their services and target recipients differ. Head Start programs focus on providing comprehensive services for low-income children and their families, specifically, services that center on education, socio-emotional development, physical and mental health, nutrition, and parent supports. Prekindergarten tends to focus only on the child – in contrast to the dual child-family focus of Head Start. The administration of Head Start is also different from Prekindergarten programs. Head Start funds flow directly from the U.S. Department of Health and Human Services to grantees. Head Start grantees are mostly nonprofit organizations, but some are schools or school districts.

In Maine, more than 4,000 infants, toddlers and preschoolers benefited from Maine's Head Start programs in 2001-02. Programs received funding from both federal and state governments. Maine is one of only a few states whose funding allows for more children to be served. Figure 23 illustrates the sources of funding for Head Start in Maine in 2001-02.

Head Start programs are required to screen and provide on-going assessment of all enrolled children. Outcome measures across the State of Maine demonstrate that all children ages 3 to 5 increased their literacy skills. National FACES Research has shown that at the end of the program year, the typical Head Start child possesses specific cognitive and social skills that signify a readiness to learn in Kindergarten, and in Kindergarten, Head Start children exceeded the growth expectation of a typical kindergartner. Attendees showed significant gains in vocabulary, letter recognition, writing, and other pre-literacy skills.

In a more localized study of school readiness, a survey of the Success By 6 project by the Center For Education Policy, Applied Research, and Evaluation found that in 2002, 67 percent of teachers surveyed indicated that Head Start or other preschool programs made a positive difference in preparing children for school.

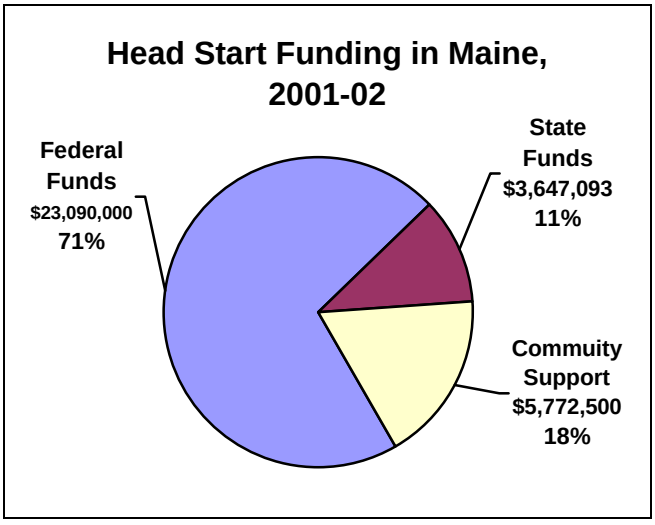


Figure 23: Source: Maine Head Start, 2003.

Resource Indicators

Resource Indicators describe school resources, inputs and processes which may influence student learning. Information is provided on the following indicators:

22. Per Pupil Operating Expenditures
23. Education Expenditures by Category
24. Special Education Expenditures
25. Transportation of Public School Students
26. Construction of Public Schools
27. District Governance Structures
28. School Type, Grade Span Configuration, and Average Enrollment
29. Pupil - Teacher Ratios
30. Staff - Administrator Ratios and Staff - Teacher Ratios
31. Salaries of Teachers and Administrators
32. Ages of Teachers and Administrators
33. Years of Experience of Full-time Teachers and Administrators
34. Gender of Full-time Teachers and Administrators
35. Educational Attainment of Teachers and Administrators
36. Teachers Rank Professional Development Activities
37. Instructional Time in Maine Schools
38. How Teachers View Their Schools as Able to Achieve the *Learning Results*
39. Time Spent on Learning Results Content Areas in Elementary Schools
40. Minimum Time Requirements for Homework in High School
41. Percent of High School Students Completing Mathematics and Science Courses
42. Percent of High School Students Completing Advanced Placement Courses
43. Educator Shortages in Maine's Public Schools
44. Cocurricular and Extracurricular Opportunities
45. Reading Recovery

22. Per Pupil Operating Expenditures

As reported by the Maine Department of Education, Maine's per pupil operating expenditures have increased steadily over the past ten years. Per pupil operating expenditures are calculated by dividing the total school expenditures (including special education and vocational education, but excluding transportation and debt service) by the total number of students. In the last ten years the average per pupil operating costs increased from $4,226 in 1991-92 to $6,640 in 2001-02 (not accounting for inflation). This was an overall increase, since 1991-92, of 57.1 percent (20.8 percent when accounting for inflation) and an average annual increase of 5.3 percent. In 2001-02, per-pupil operating costs for individual units ranged from a low of $4,982 to a high of $30,366. A more detailed review of the last ten years in Table 21 shows the average per-pupil costs since 1991-92 and the annual percentage increases.

Table 24: Statewide Average Per-Pupil Operating Expenditures

Fiscal Year	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002
Per-Pupil Operating Costs	$4,299	$4,411	$4,600	$4,738	$4,938	$5,146	$5,474	$5,818	$6,233	$6,640
Annual Percent Increase	1.7%	2.6%	4.3%	3.0%	4.2%	4.2%	6.4%	6.3%	7.1%	6.5%

Source: Maine Department of Education, 2003.

23. Education Expenditures by Category

Maine's education expenditures for school year 2001-02 were $1,581,854,923, an increase of $44.1 million or 2.9 percent from the previous year. Figure 24 shows how the expenditures break down by category statewide. Regular education received nearly half (44.8 percent), or $707.9 million of the financial resources. The costs in the regular education category included teacher salaries and benefits, support staff salaries and benefits, and materials and supplies.

The second highest category of expenditures was special education. These costs were approximately $209.1 million (13.2 percent) reflecting expenditures for salaries and benefits, testing, materials, and supplies for all special education students, except those who were state wards and state agency clients. (The "Special Education Expenditures" indicator reports an expenditure figure that *includes* costs associated with state wards and state agency clients.) Facilities maintenance, the third highest expenditure category, accounted for 11.5 percent of all costs, or $181.5 million. This reflected all the costs of operating the buildings but excluded debt service.

In 2001-02, administration costs totaled approximately 9.3 percent of education costs, with 4.0 percent, or $62.5 million, spent on superintendents' offices, and 5.3 percent, or $83.9 million, expended on principals' offices. These categories included expenses for personnel, and supplies and materials, according to the Maine Department of Education. The profile in expenditures varies among school districts across the state.

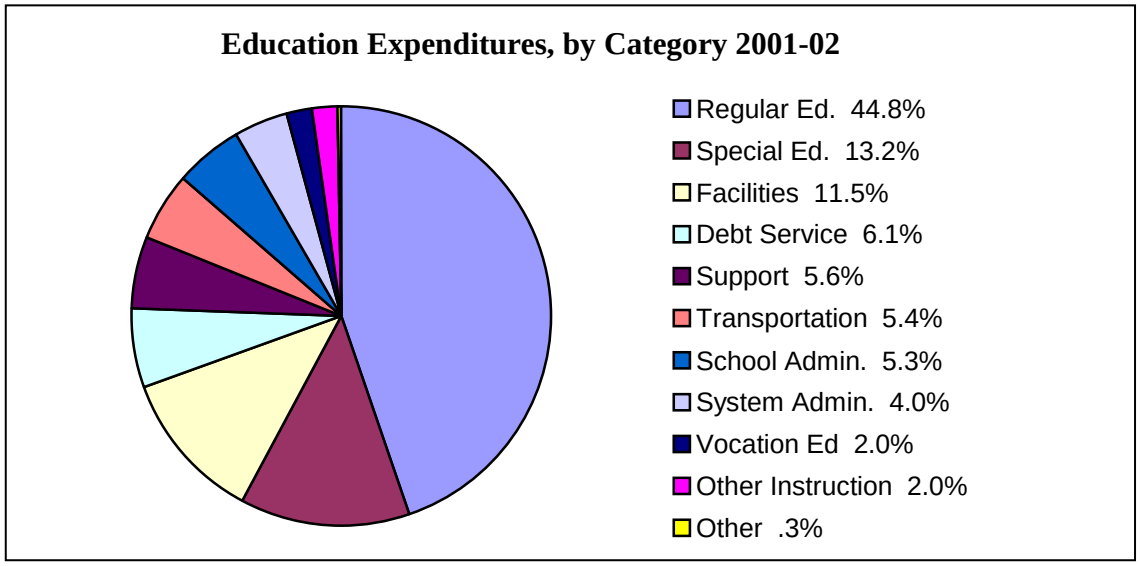


Figure 24: Source: Maine Department of Education, 2003.

24. Special Education Expenditures

Maine special education costs have risen since 1993-94, when more than $133 million was spent, to approximately $236.5 million in 2001-02, as shown in Table 25 and Figure 25. This was a 44.97 percent increase when accounting for inflation. These figures include expenditures for state wards and state agency clients. The top five expenditures for locally operated special education programs in 2001-02 were special education teachers (42.9 percent), Education Technologist II (10.3 percent), speech and language therapists (8.0 percent), Education Technologist I (7.6 percent), and Education Technologist III (9.0 percent).

Most recent available figures revealed that between school year 2000-01 and 2001-02, special education costs have increased by 8.5 percent while total school expenditures increased by 6.5 percent. As a share of total education expenditures, special education costs reached 11.3 percent in 1991-922. In 2001-02, the special education share had increased to 13.2, according to the Maine Department of Education.

From the perspective of enrollments, the total number of public school students decreased by 3.3 percent between 2001-02 and 2002-03, and special education enrollments increased by 1.5 percent. Furthermore, while Maine public school total enrollments have declined by 3.6 percent between 1992-93 and 2002-03, special education enrollments have increased by 28.0 percent.

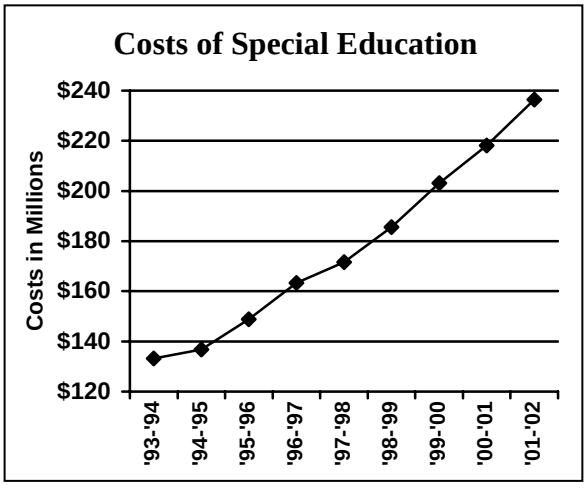


Figure 25: Source: Maine Department of Education, 2003.

Table 25: Special Education Expenditures, 1993-94 through 2001-02

	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002
Special Education Expenditures (Millions)	$133.2	$136.8	$148.9	$163.4	$171.6	$185.6	$203.1	$218.1	$236.5

Source: Maine Department of Education, 2003.

25. Transportation of Public School Students

According to the Maine Department of Education, expenditures for school bus transportation of students in the public schools has increased since 1992-93 by approximately $23 million from $52.7 million to $75.6 million in 2001-02, a 43 percent increase, or an average of 4.3 percent per year, while total miles traveled per year remained relatively constant, as shown in Table 26. Compared to 2000-01, 3,983 fewer children were transported by school bus in 2001-02.

The range of costs per mile was between a low of $.40 and a high of $4.91, and the statewide average cost per mile was $2.25 in 2001-02. This was an increase of $.61 since 1992-93, as shown in Figure 26. The average expenditure per student conveyed was $441.29 in school year 2001-02. This was an increase of 8.0 percent over the previous year. Comparison with other states shows that in school year 2000-01, Maine spent, on average, $409 per student to transport 172,724 students. In the same year, New Hampshire spent $432 per student and Connecticut, $441 per student.

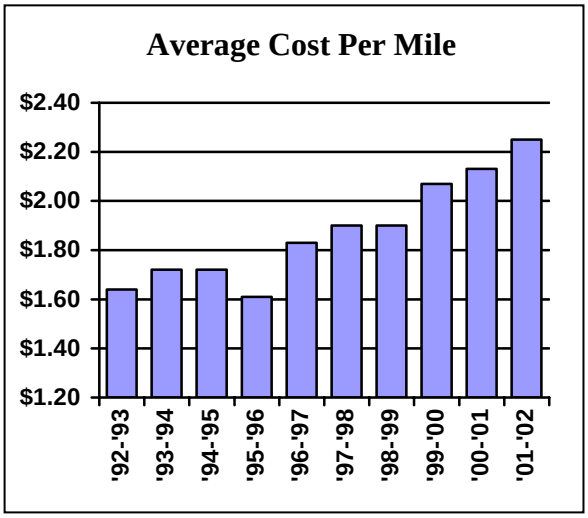


Figure 26: Source: Maine Department of Education, 2003.

Table 26: Maine Public School Student Transportation Statistics

Year	Expenditures	Miles Traveled	Average Cost per Mile	Average Number of Children Transported
1992-93	$52,700,465	32,156,017	$1.64	177,357
1993-94	$54,727,736	31,799,487	$1.72	181,568
1994-95	$55,410,841	32,222,470	$1.72	179,173
1995-96	$57,440,782	35,661,796	$1.61	180,631
1996-97	$58,692,703	32,085,230	$1.83	182,266
1997-98	$59,919,872	31,490,490	$1.90	182,288
1998-99	$62,671,801	32,900,582	$1.90	181,037
1999-00	$67,066,803	32,417,593	$2.07	179,102
2000-01	$71,675,710	33,582,119	$2.13	175,345
2001-02	$75,620,891	33,674,714	$2.25	171,362

Source: Maine Department of Education, 2003.

[Note: Figures for Connecticut and New Hampshire include private school students. Data for Vermont was unavailable.] The national average cost per student conveyed was $527, according to School Bus Fleet Magazine, a trade publication. During school year 2001-02, only 20 percent of the children in Maine who attended public school did not travel to and from school in a bus. The national average percent of students who were transported was roughly 50 percent.

The Maine Department of Education reported that state funding for school bus replacement has increased slightly from $5.3 million in 2000-01 to $5.6 million in 2001-02, bringing the amount close to the national average of $5.75 million. The amount of bus purchases approved by the state in 2001-02 was 178 of the 206 requests received. This approval rating of 86 percent amounts to an increase of 28 percent from the previous year. However, 45 of those approved were cancelled due to local budget cuts. This refers to the publicly owned bus fleet only, and does not include lease purchases.

In the past few years, school districts have resorted to leasing and lease-purchasing buses at an increasing rate in order to replace worn out vehicles. This has had a direct impact on the increased interest cost attributable to lease purchases, a continuing trend toward contracting for pupil transportation services, and increased costs associated with special needs transportation services, fuel prices and employee wages and benefits.

Nevertheless, increased acquisition using lease-purchasing agreements and improved purchasing power generated by the Maine School Bus Bid Program has reduced the average replacement rate of the fleet from 14.5 years in 2001-02 to 13.6 years in 2002-03. This improved turnover has resulted in a reversal of the average mileage trend, as shown in Figure 27.

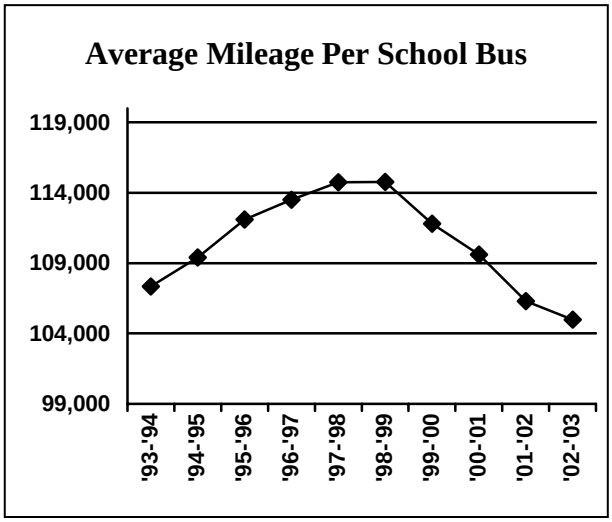


Figure 27: Source: Maine Department of Education, 2003.

26. Construction of Public Schools

Since 1972 the number of school projects that have been funded under the state's school construction debt ceiling (Major Capital Improvement Program) is 487. A minimum of 307 of the total number of projects were additions and renovations to existing facilities. New school facilities that replaced existing buildings numbered 176, according to the Maine Department of Education. The projects are funded on a competitive basis by the Debt Service Limit, the amount of state money available for approved construction costs in a given year. In 1990 the limit was $48 million; in 2003 the limit was $80 million; this is expected to be $96 million in 2007. Figure 28 shows school building projects in Maine by decade since 1910, including the current decade to date. The 1950's through the 1980's showed the highest growth.

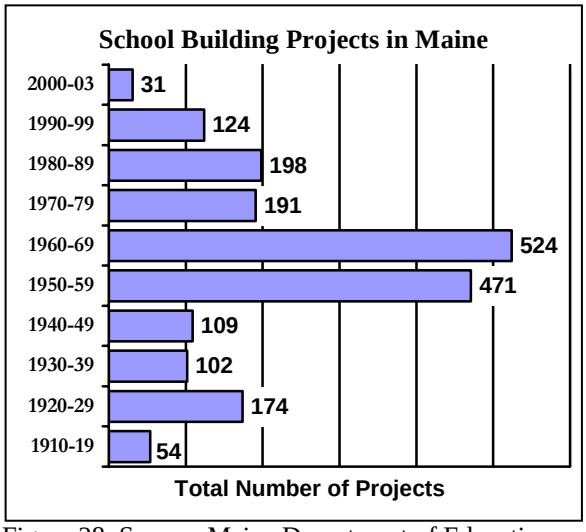


Figure 28: Source: Maine Department of Education, 2003.

According to the Maine Department of Education, it is the numerous construction projects of the 1950's and 1960's that are now requiring repairs, renovations, and replacements. A school facilities report authorized by the Maine State Legislature and issued by the Center for Research and Evaluation at the University of Maine in 1997 showed an expected cost of $111.8 million for necessary safety (roof, air quality, Americans with Disabilities Act compliance, asbestos, oil tank removal) and non-safety (water, septic, structure, windows, pavement, playgrounds) repairs and improvements.

In response, the Maine Legislature established the Maine School Facilities Finance Program and the School Revolving Loan Fund. The fund is used to finance the cost of school repair and renovation, among other costs. Since 1999, a total of 242 necessary repairs and renovations of school facilities have been funded through this program at an estimated total cost of $88.8 million with $69.2 million currently funded. The two most needed repairs included the roof with 97 projects to date, and inadequate air quality with 72 projects, together totaling more than half of the total number of projects.

27. School District Governance Structures

Maine has a rather complex educational system consisting of 285 school administrative units with a variety of governance structures. The five major governance structures are Cities and Towns with Individual Supervision, Community School Districts (CSDs), School Administrative Districts (SADs), Unions, and Units under School Agent Supervision.

To clarify the differences of each of these governance structures, a ***city or town with individual supervision*** is a single municipality. A ***community school district*** (CSD) is a combination of two or more municipalities and/or districts formed to build, maintain, and operate a school building or buildings to educate any or all grades. A ***school administrative district*** (SAD) is a combination of two or more municipalities who pool all their educational resources to educate all students. A ***union*** is a combination of two or more school administrative units joined together for the purpose of sharing the costs of a superintendent and the superintendent's office. A ***unit under school agent supervision*** is a relatively small unit requiring less than full-time administration. Also included in this category is education in Maine's unorganized territory (EUT).

During the 2002-03 school year, the governance structures consisted of 47 cities and towns under individual supervision, 14 community school districts (CSDs), 73 school administrative districts (SADs), 127 unions, and 24 towns under school agent supervision. The following table further illustrates the number of units as well as the number of municipalities included in each type of unit.

Table 27: Distribution of School Administrative Unit Structures in Maine (2002-2003)

School Administrative Unit (SAU)	Number of SAUs	Number of Municipalities
Cities & Towns with Individual Supervision	47	47
Community School Districts (CSD)	14	45
School Administrative Districts (SAD)	73	274
Unions (including Maine Indian Education)	127	127
Units under School Agent Supervision	24	24
TOTALS *	**285**	**492 ***

* 25 municipalities belong to more than one type of school administrative unit structure:
2 are members of two separate CSDs; 2 are members of a SAD and a CSD; 1 is under an Agent of the Commissioner and a member of a CSD; the remaining 22 are SADs in Unions and members of a CSD.

Source: Maine Department of Education, 2003.

28. School Type, Grade Span Configuration, and Average Enrollment

Another factor in understanding the organization of Maine schools is the different types of schools throughout the state. These include elementary schools (including any combination of kindergarten through grade 8); secondary schools (including any combination of grades 9 through 12); and combined elementary and secondary schools (including any combination of kindergarten through grade 12). Table 28 shows the number of public schools in Maine by type for 2002-03.

Table 28: Public Schools by Type

School Type	Number
Elementary Schools	539
Secondary Schools	128
Combined	30
Totals	697

Source: Maine Department of Education, 2003.

Included within these school categories are some other types of schools. The secondary schools include 19 Technology Centers and eight Technology Regions. Eleven of the private schools listed are also non-sectarian with 60% or more publicly funded students. Schools that also provide Special Education include 153 public schools and 26 private schools. Schools that have Alternative Education Programs include 93 public schools and 6 private schools. Those schools that provide Early Kindergarten/4-Year Old Programs through grade four number 461 public and 84 private. Finally, one of the public secondary schools is a charter school and three of the public combined schools are State Operated Schools.

According to the National Center for Education Statistics, Maine's public school average student enrollments were significantly smaller than the national average for both elementary and secondary schools. In 2001-02, Maine's elementary schools had an average enrollment of 218 students; the national average was 441. Forty-three states had, on average, more students in each of their elementary schools. Maine's average enrollment for secondary schools in 2001-02 was 556, compared to the national average of 753 students. Thirty-six states had, on average, more students in each of their secondary schools than Maine had.

Table 29: Sizes of Maine Schools, 2002-03

Enrollment Size	Public Schools
Under 100	16.0%
100 to 199	21.0%
200 to 499	47.6%
500 to 799	11.0%
800 to 999	2.4%
1000 or more	2.0%

Source: Maine Department of Education, 2003.

For the 2002-03 school year, there were a total of 697 public schools with 48 different grade configurations. The most common type of public school in Maine is the grade 9-12 secondary school with a total of 127, closely followed by the K-8 elementary school at 94. However, as shown in the following table, there are a wider variety of grade configurations throughout the state, due to the differing needs and available space within each district and the geographic size of districts.

Table 30: Public School Grade Configurations and Average Student Enrollment, 2002-03

Grade Span	Number of Schools	Average Number Students Enrolled		Grade Span	Number of Schools	Average Number Students Enrolled
EK	1	7		1-6	1	679
EK-K	2	113		1-12	1	55
EK-1	3	161		2-3	1	105
EK-2	2	470		2-4	4	315
EK-3	6	395		2-5	1	259
EK-4	10	205		2-6	1	103
EK-5	16	249		3-4	3	209
EK-6	8	192		3-5	18	309
EK-8	18	138		3-6	1	218
EK-12	4	173		4-5	11	279
K	5	143		4-6	10	288
K-1	4	128		4-8	4	336
K-2	27	211		4-12	1	33
K-3	22	263		5-6	2	252
K-4	19	230		5-8	23	373
K-5	81	245		6	2	175
K-6	58	249		6-8	53	420
K-7	1	386		6-12	4	269
K-8	94	203		7-8	17	443
K-12	6	237		7-10	1	28
1-2	1	221		7-12	12	211
1-3	4	269		8-12	1	493
1-4	2	196		9-12	127	620
1-5	3	213		Total	697	

Source: Maine Department of Education, 2003.

29. Pupil - Teacher Ratios

One indication of how school resources are used is in terms of pupil-teacher ratios. The pupil-teacher ratio is calculated by dividing the total number of pupils enrolled in public schools by the total number of full-time equivalent teachers. The teacher count consists of full-time teachers who are classroom teachers, special education teachers, specialist teachers of reading/literacy, itinerant teachers, and speech and hearing clinicians.

Table 31 shows historical data on pupil-teacher ratios in Maine. The ratios have fluctuated only slightly during the early part of the past decade; however, they have declined in recent years. A ratio of 15 to one means that for every 15 students there is one full-time teacher. The average ratio in 2002-03 was 12.7 students to one teacher.

Pupil-teacher ratios vary throughout Maine from a low of 9.5 to one in Franklin County to a high of 14.8 to one in Piscataquis County. Figure 29 shows pupil-teacher ratios for each county.

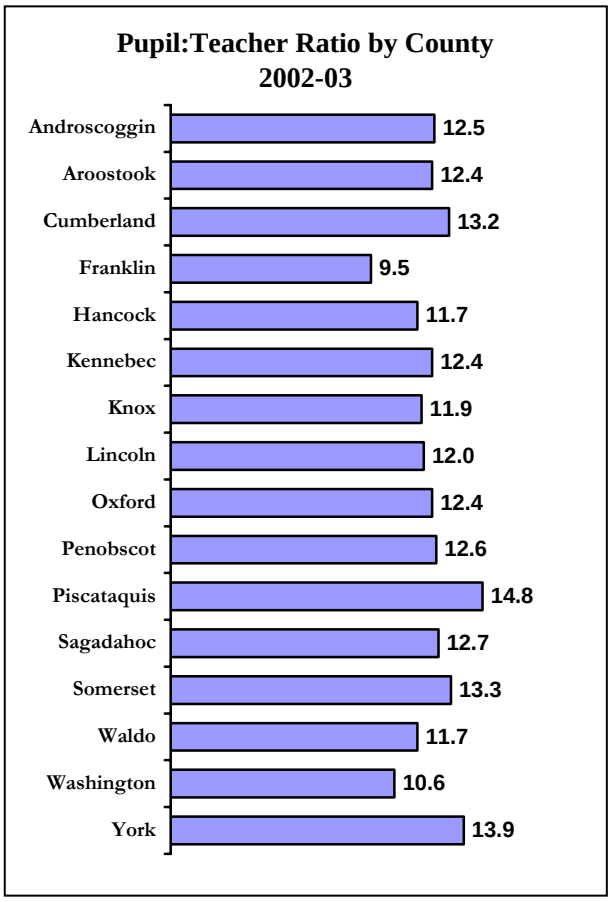


Figure 29: Source: Maine Department of Education, 2003.

Table 31: Pupil - Teacher Ratios in Maine Public Schools

Category	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003
No. of Teachers	14,545	14,609	14,458	14,626	14,798	15,056	15,728	15,974	15,933	16,107
No. of Pupils	216,943	217,279	217,695	213,695	217,570	216,121	214,985	212,957	211,058	204,337
Pupil/Teacher Ratios	**14.9:1**	**14.9:1**	**15:1**	**14.6:1**	**14.7:1**	**14.4:1**	**13.7:1**	**13.3:1**	**13.3:1**	**12.7:1**

Source: Maine Department of Education, 2003.

Figure 30 shows ratios as a comparison among northern New England states. According to the information in the *NEA Rankings of the States* publication, Maine, New Hampshire, and Vermont had pupil-teacher ratios lower than the national average of 14.8 students to one teacher in 2002-03. (The reader will note slight differences in state-generated and NEA-generated ratios. This is due to differences in the calculation process.)

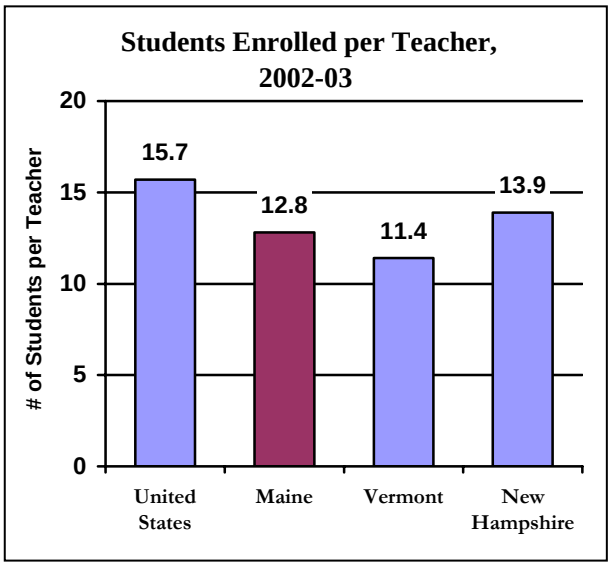


Figure 30: Source: NEA Rankings of the States, 2003.

30. Staff - Administrator Ratios and Staff - Teacher Ratios

Staff to administrator ratios are also an indication of how school resources are used. The following table shows numbers of staff and ratios for the 2002-03 school year.

Table 32: Staff to Administrator Ratios

Category	2002-03
Administrators	1,524
Total Fulltime Staff	31,735
Staff/Administrator Ratio	20.8:1
Classroom Teachers	16,107

Source: Maine Department of Education, 2003.

Records from the Maine Department of Education show that in 2002-03 each administrator was responsible, on average, for approximately 21 staff members. Administrators includes superintendents (and half-time superintendents), assistant superintendents, principals, assistant principals, curriculum coordinators, directors of transportation, business administrators, supervisors of instruction, directors and assistant directors of vocational education, as well as directors of services for exceptional children.

The proportion of total instructional school staff that is comprised of teachers is a measure of how school budgets break down in direct education services to students. According to the National Center for Education Statistics, the numbers of nonteaching staff in the public schools grew at a rate faster than the numbers of teachers and students in the 1970's. Throughout the 1970's, the national percent of total staff who were teachers, as opposed to nonteaching staff, declined from 60 percent to 52 percent by 1980. Since then the numbers of teachers and nonteaching staff have increased at approximately the same rates.

The data in figure 31 shows how Maine compared with other New England states and the United States in the proportion of total public school instructional staff who were teachers in school year 2002-03. As shown in the chart below, Maine exceeded Vermont, New Hampshire, and the New England average. However, Maine fell slightly below the national average of 88.0 percent. Instructional staff included teachers, principals, supervisors, and various other instructional staff.

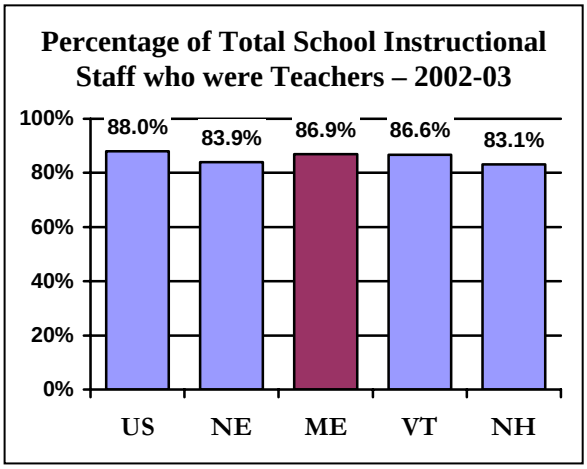


Figure 31: Source: National Education Association, 2003.

31. Salaries of Teachers and Administrators

As reported in Table 33 and Figure 32, classroom teacher salaries in Maine increased 24.3 percent (not adjusted for inflation) since 1993-94 to an average salary of $38,518 in 2002-03. According to the National Center for Education Statistics, in 2002-03 Maine ranked 38th in the nation compared to the national average of $45,930. Maine ranked last among the New England States: Connecticut ranked 2nd nationally ($55,367); Massachusetts 6th ($52,043); Rhode Island 7th ($51,076); New Hampshire 25th ($41,909); and Vermont 27th ($41,491).

In Maine, the average salary for full-time principals has increased 26.3 percent (not adjusted for inflation) since 1993-94 to $60,388 in 2002-03. The average salary for full-time superintendents in 2002-03 was $80,543, which represents an increase of 31.7 percent since 1993-94.

However, when adjusted for inflation, average salaries of Maine teachers, principals and superintendents remained relatively flat in the last decade. Teachers' average inflation adjusted salaries decreased by 0.5 percent, principals' increased by 1.2 percent, and superintendents' increased by 5.5 percent from 1993-94 through 2002-03.

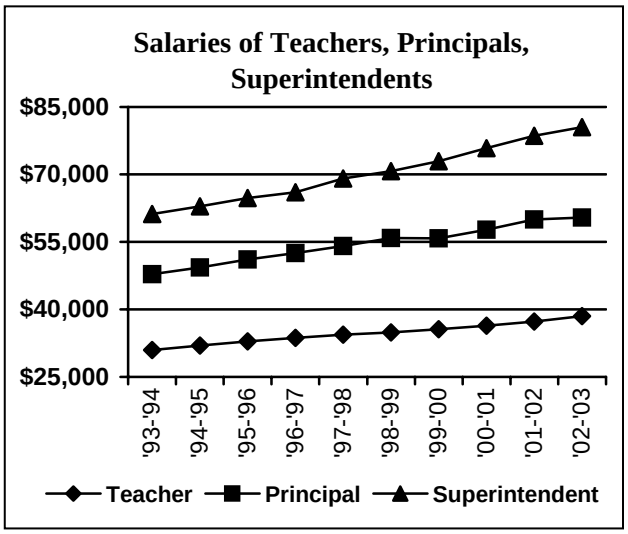


Figure 32: Source: Maine Department of Education, 2003.

Table 33: Average Salaries of Maine's Teachers, Full-Time Principals, & Superintendents

Category	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003
Teacher	$30,996	$31,972	$32,869	$33,676	$34,349	$34,906	$35,561	$36,373	$37,300	$38,518
Principal	$47,797	$49,335	$51,109	$52,503	$54,054	$55,838	$55,184	$57,693	$59,975	$60,388
Superintendent	$61,171	$62,908	$64,760	$66,007	$69,058	$70,689	$72,902	$75,845	$78,595	$80,543

Source: Maine Department of Education, 2003.

32. Ages of Teachers and Administrators

According to the Maine Department of Education, in 2002-03, 67.4 percent of Maine's full-time teachers were over 40 years of age, 33.6 percent were between the ages of 40 and 49, and 31.4 percent were between the ages of 50 and 59. Figure 33 shows the percent of full-time teachers by age group in 2002-03.

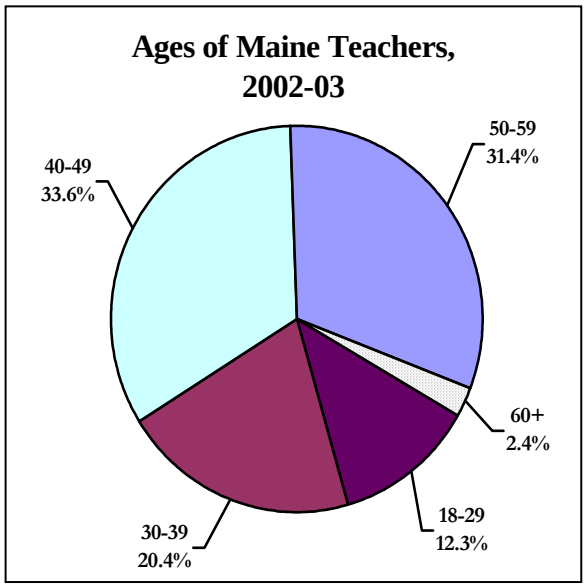


Figure 33: Source: Maine Department of Education, 2003.

In 2002-03, more than 90 percent of Maine superintendents and principals were over 40 years of age as shown in Figure 34. A breakdown of the data shows that 28.3 percent of these full-time administrators were between the ages of 40-49, while 53.5 percent were between the ages of 50 and 59. This indicates that a high percentage of full-time teachers and administrators are approaching retirement, a demographic factor which has possible implications for school funding, retirement costs, and availability of administrative professionals.

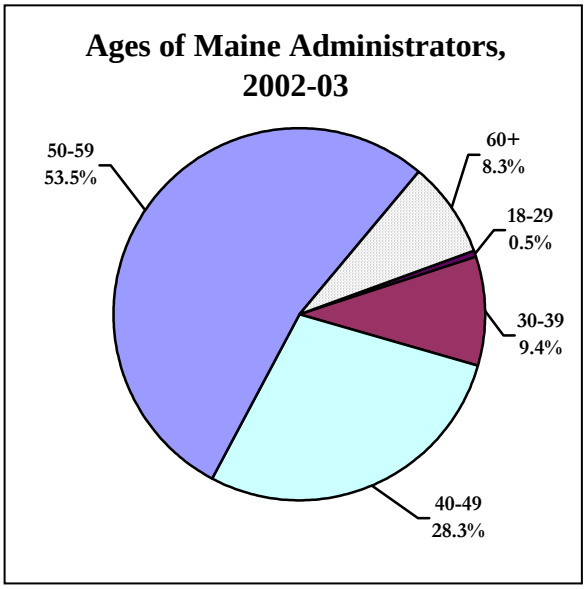


Figure 34: Source: Maine Department of Education, 2003.

33. Years of Experience of Full-time Teachers and Administrators

In 2002-03, the largest portion of Maine's full-time teacher work force (41.9 percent) had 19 or more years of experience. There has been little change in this statistic since 1997-98, but a significant change since the early nineties when 28.5 percent of teachers in 1990-91 had 19 or more years of experience. This contrasts with the number of full-time teachers who were relatively new to teaching in 2002-03: almost one in five, or 20.1 percent of the work force, had 0-5 years of experience, as shown in Table 34 and Figure 35.

The Maine Department of Education reported, in 2002-03, that Maine principals and superintendents also had considerable experience in education, with 79.5 percent having 19 or more years of experience in the education profession and 15.1 percent having between 11 and 18 years of experience, as shown in Figure 36.

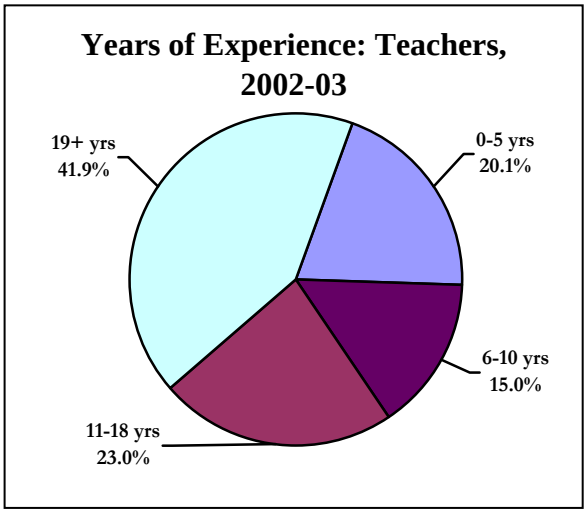


Figure 35: Source: Maine Department of Education, 2003.

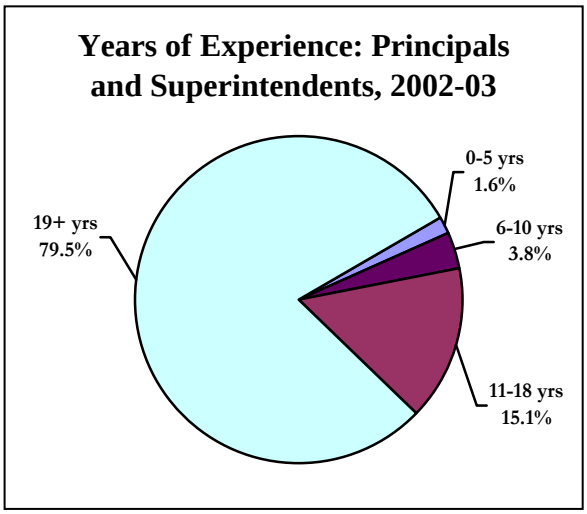


Figure 36: Source: Maine Department of Education, 2003.

Table 34: Teaching Experience in Maine 1997-98 - 2002-03

School Year	0-5 years	6-10 years	11-18 years	19+ years	Total Full-time Teachers
1997-98	15.4%	15.3%	26.6%	42.5%	14,750
1998-99	21.5%	15.1%	25.9%	42.3%	15,009
1999-00	18.2%	14.9%	25.1%	41.8%	15,690
2000-01	19.1%	15.0%	24.5%	41.4%	15,912
2001-02	20.2%	14.7%	23.7%	41.4%	16,182
2002-03	20.1%	15.0%	23.0%	41.9%	16,270

Source: Maine Department of Education, 2003.

34. Gender of Full-time Teachers and Administrators

The proportion of female to male full-time teachers in Maine has shifted only slightly since 1997-98 when 70 percent were female and 30 percent were male. In 2002-03, 72.6 percent of full-time teachers were female and 27.4 percent male. However, if one looks at full-time elementary teachers, one sees a wider discrepancy according to gender, as shown in Figure 37.

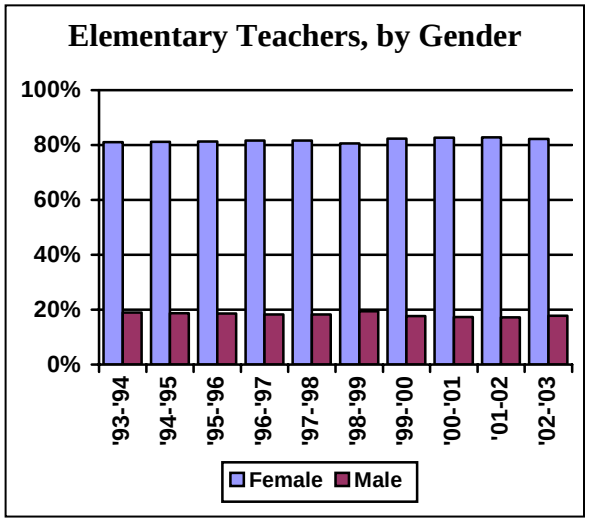


Figure 38: Source: Maine Department of Education, 2003.

In 1993-94, 81.1 percent of all *elementary* teachers were female, while 51.4 percent of all *secondary* teachers were male. In 2002-03, 82.2 percent of all *elementary* teachers were female, while 48.3 percent of all *secondary* teachers were male. Between 1993-94 and 2002-03, the proportion of full-time male elementary teachers decreased from 18.9 percent to 17.8 percent. Of more than ten thousand elementary teachers, only 1,958 are male. Figure 38 shows a relatively even split between male and female secondary teachers.

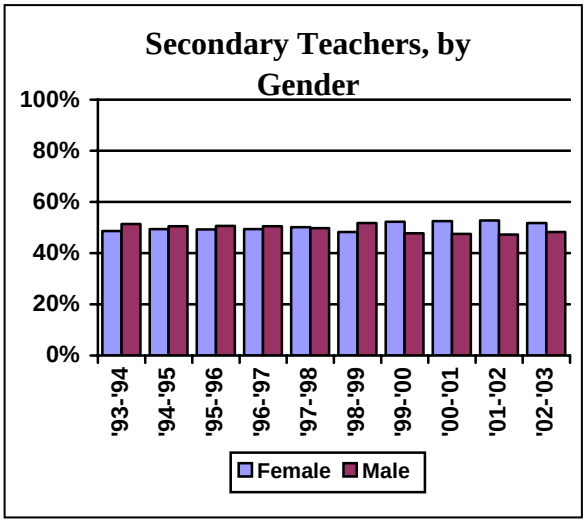


Figure 37: Source: Maine Department of Education, 2003.

In terms of administrative staff, the Maine Department of Education reported that in 2002-03, 32.7 percent of full-time superintendents were female, continuing the steady increase from the 6.0 percent reported in 1990-91. The gender gap for principals and assistant principals has also been steadily decreasing from 28.0 percent female in 1990-91 to 43.1 percent in 2002-03.

35. Educational Attainment of Teachers and Administrators

The National Education Association reported that in year 2001, 56 percent of public school teachers nationwide had a bachelor's degree, while 43 percent had attained master's degrees. One percent of teachers nationwide had doctorates.

In 2002-03, 42.5 percent of all full-time teachers in Maine reported that their highest level of educational attainment was a bachelor's degree, while 10.9 percent had attained 15 credit hours beyond the bachelor's. Another 11.2 percent had attained 30 hours of credit beyond the bachelor's, and an additional 24.1 percent had attained a master's degree. Those who had attained credits beyond the master's degree equaled 8.5 percent. Finally, 1.3 percent had a certificate of advanced study and 0.5 percent had a doctorate, as shown in Table 35.

According to the Maine Department of Education, 42.1 percent of Maine's principals and superintendents held master's degrees as their highest level of study, 25.2 percent had attained either master's plus 15 or master's plus 30 credit hours, 21.0 percent had achieved the certificate of advanced study, and 7.2 percent held doctorates in 2002-03, as shown in Table 36.

Table 35: Educational Attainment of Teachers, 2002-03

Educational Attainment	Full-time Teachers
Less than bachelor's degree	1.0%
Bachelor's degree	42.5%
Bachelor's degree +15 hours	10.9%
Bachelor's degree +30 hours	11.2%
Master's degree	24.1%
Credits beyond master's	8.5%
Certificate of advanced study	1.3%
Doctorate	0.5%

Source: Maine Department of Education, 2003.

Table 36: Educational Attainment of Administrators, 2002-03

Educational Attainment	Administrators
Bachelor's degree	1.5%
Bachelor's degree +15 hours	1.5%
Bachelor's degree +30 hours	1.6%
Master's degree	42.1%
Master's degree +15, +30 hours	25.2%
Certificate of advanced study	21.0%
Doctorate	7.2%

Source: Maine Department of Education, 2003.

36. Teachers Rank Professional Development Activities

The *Maine Learning Results* identifies what students are expected to learn. Consequently, what teachers are expected to teach, and ultimately what assessment methods used will most effectively determine student progress. It is this ongoing need to improve curriculum, instruction, and assessment that promotes the need for professional development systems and activities for teachers throughout the state. The Maine Education Assessment (MEA) surveyed teachers of fourth, eighth, and eleventh graders in 2001 about their ratings of the effectiveness of different-sourced professional development activities.

As shown in Table 37, fourth, eighth, and eleventh grade teachers reported that, of those activities that helped teachers *teach the Learning Results* content, school-and district-based activities ranked first in effectiveness (72.0 percent). Fourth and eighth grade teachers (72.0 and 70.9 percent, respectively) rated university courses and inservice the second most effective professional development source. On the other hand, eleventh grade teachers ranked activities sponsored by professional organizers second (62.5 percent). Fewer than half of all the teachers surveyed gave high ratings to activities sponsored by the Maine Department of Education (43.6 percent) and regionally-sponsored activities (41.8 percent.)

Table 37: Effectiveness of Professional Development Activities that Help Teachers *Teach the Learning Results*

Source of Activity	Teachers Who Agree or Strongly Agree			
	4th	8th	11th	Total Average
School-based, district-based	73.5%	73.2%	69.4%	72.0%
University courses and inservice	72.0%	70.9%	54.6%	65.8%
Professional organization	47.2%	55.0%	62.5%	54.9%
Department of Education	42.5%	44.5%	43.8%	43.6%
Regional	40.9%	46.4%	38.0%	41.8%

Source: Maine Education Assessment, Maine Education Policy Research Institute, 2001.

Similar to the rating about professional development activities that are geared toward effective teaching of the Learning Results were the teachers' ratings about those activities that are effective in building a foundation to assess the *Learning Results*. Table 38 shows that more than two-thirds (67.5 percent) of teachers surveyed rated school- and district-based professional development activities as being most effective.

The next most highly rated activity helpful in assessment was university courses and inservice (58.3 percent). Activities sponsored by professional organizations and the Maine Department of Education were rated effective by fewer than half of the teachers (44.8 and 42.5 percent, respectively), while regionally-sponsored activities were rated effective by only 36.9 percent.

In summary, fourth, eighth, and eleventh grade teachers in Maine reported in 2001 that the most highly effective professional development activities were those that were school- and district-based activities.

Table 38: Effectiveness of Professional Development Activities that Help Teachers *Assess the Learning Results*

Source of Activity	Teachers Who Agree or Strongly Agree			
	4th	8th	11th	Total Average
School-based, district-based	66.0%	70.5%	66.1%	67.5%
University courses and inservice	63.1%	63.2%	48.7%	58.3%
Professional organization	39.5%	50.0%	45.0%	44.8%
Department of Education	38.8%	44.5%	44.1%	42.5%
Regional	37.5%	43.8%	29.4%	36.9%

Source: Maine Education Assessment, Maine Education Policy Research Institute, 2001.

37. Instructional Time in Maine Schools

Maine statute establishes a minimum number of days required during the school year and the minimum instructional time in each day. Maine requires schools to have 175 student days with a minimum of five hours of classroom instruction each day. Some variation does exist among Maine schools where, in some districts, students attend school for more days in the year or for longer days than required. Districts have a variety of requirements for classroom instruction, and some districts vary the hours depending on the grade levels within the school. Table 39 shows the percentage of Maine elementary, middle, and secondary schools with differing lengths of school days. As shown in the table the most common length of the school day is between five and five and three-fourths hours.

Figure 39 shows the difference in the minimum number of hours required in three New England states for classroom instruction. Maine requires 875 hours (175 days times 5 hours per day) which is less instructional time for students than the required 962.5 hours in Vermont or the 1,080 hours required in New Hampshire. In 2000, according to the National Center for Education Statistics, 33 states required instructional days of 180 or more per year, while 11 states (including Maine) required fewer than 180 days. (Information for six states was unavailable.)

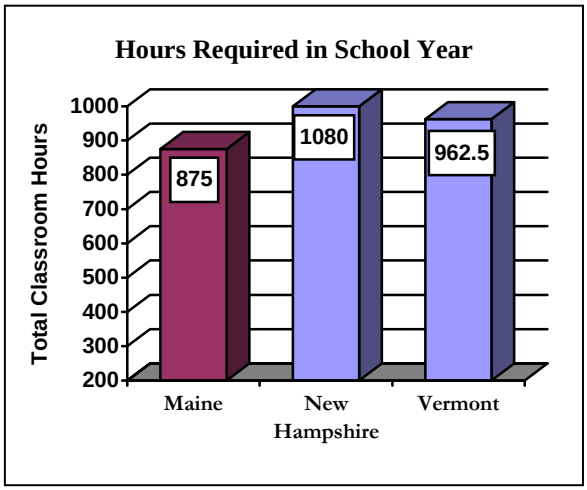


Figure 39: Source: Council of Chief State School Officer, 2001.

Table 39: Total Classroom Time In Maine Schools

Length of School Day	K-5 Schools	K-8 Schools	6-8 Schools	9-12 Schools
4.0-4.75 Hours	14.4%	9.9%	5.4%	0%
5.0-5.75 Hours	72.8%	76.2%	67.5%	79.7%
6.0-6.75 Hours	9.9%	13.8%	27%	20.3%
More than 7 hours	3.0%	0%	0%	0%

Source: 2001 Maine Public School Census Survey, Maine Educational Policy Research Institute, 2002.

38. How Teachers View Their Schools as Able to Achieve *Learning Results*

The *Maine Learning Results* identify what students are expected to learn, what teachers are expected to teach, and ultimately, what assessment methods will most effectively determine student progress. As stated by the *Maine Learning Results* document, the *Learning Results articulate the knowledge and skills students need for work, for higher education, for citizenship, and for personal fulfillment* - the goals of student learning. How to achieve the *Learning Results* is a common discussion within every school and district in the state.

Maine citizens, educators, and policymakers often ask, *"Are we achieving the Learning Results?"* One source of evidence in answer to this question is teacher expectations and observations. In spring 2001, the Maine Education Assessment (MEA), a statewide assessment test of fourth, eighth, and eleventh graders, surveyed teachers as to their view of whether their school will be able to achieve mastery of the *Learning Results* for all students.

As shown in Table 40, 7.0 percent of teachers strongly agreed, and 31.4 percent agreed, that their school will be able to achieve mastery of *Learning Results* for all students. Those who disagreed equaled 33.5 percent, strongly disagreed, 22.0 percent. Those who were not sure were 6.1 percent.

Thus, a majority of teachers (55.5 percent) do not think that their schools will be able to achieve the *Learning Results'* stated goals for all students. Fewer teachers, 38.4 percent, agreed the goal will be met. This indicates there is considerable work ahead in order for mastery of the *Learning Results* to be achieved. Hopefully, as educators continue to participate in professional development, curriculum examination, and assessment improvements, significant progress will be made toward achievement of the *Learning Results*.

Table 40: How Teachers View Their Schools as Able to Achieve Mastery of Learning Results for All Students

	4th Grade Teachers	8th Grade Teachers	11th Grade Teachers	Total Average Percent of Teachers
Strongly Agree	5.3%	6.4%	9.2%	**7.0%**
Agree	29.5%	33.5%	31.1%	**31.4%**
Disagree	32.9%	34.9%	32.8%	**33.5%**
Strongly Disagree	23.7%	20.6%	21.8%	**22.0%**
I am not sure	8.7%	4.6%	5.0%	**6.1%**

Source: Maine Education Assessment, Maine Education Policy Research Institute, 2002.

39. Time Spent on Learning Results Content Areas in Elementary Schools

For all Maine children to achieve the Learning Results standards, they need to receive sufficient instruction in each of the eight content areas. In the 2001-2002 Maine Public School Census Survey, elementary principals were asked how many minutes per week students received instruction in the Learning Results areas. Table 41 reports the percent of time each week children in grades K-5 received instruction in these areas. As shown in the table, approximately 36 to 41 percent of the time was spent on English language arts (which includes reading). An additional 21 percent was spent on mathematics. Instructional time in the other six content areas was considerably less. Approximately 10 to 15 percent of the week was spent on each of the areas of science and social studies, and less than six percent of the week was spent providing instruction in visual and performing arts, and health and physical education. Only about one percent of the instructional week was devoted to foreign language instruction and career preparation.

Since the 1998-99 Census Survey, there has been little change in the percent of time spent each week in the content areas except in health and physical education. In this area, schools had provided instruction nine percent of the time. The new survey reported a decrease to six percent of the time.

Table 41: Percent of Time per Week Spent on Content Areas

Content Area	K	1	2	3	4	5
Career Preparation	1%	1%	1%	1%	1%	1%
English Language Arts	41%	43%	42%	39%	37%	36%
Foreign Languages	1%	1%	1%	2%	1%	1%
Health & Physical Education	6%	5%	5%	5%	5%	6%
Mathematics	21%	22%	22%	21%	21%	21%
Science & Technology	11%	11%	12%	13%	14%	15%
Social Studies	10%	10%	10%	12%	13%	14%
Visual & Performing Arts	6%	5%	5%	5%	6%	6%

Source: 2000-2001 Maine Public School Census Survey, 2002.

40. Minimum Time Requirements for Homework in High School

Studies have found that the amount of time students spend on completing homework (versus watching television, for example) is related to achievement. In the 2001-2002 Maine Public School Census Survey, high school principals were asked to report whether their school had a *written homework policy* of minimum time requirements. Fifty-one percent of the principals responded affirmatively.

Further, the principals were asked to indicate the homework time requirements expected of their students. Ninth graders were expected to complete as few as 30 minutes (44 percent of schools) and as many as 120 minutes (6 percent of schools) each night. Tenth graders were also expected to complete between 30 and 120 minutes per night, with 44 percent of the schools expecting 30 minutes, and six percent expecting 120 minutes. In the eleventh grade, 44 percent of schools required 30 minutes and six percent required 120 minutes. Finally, 44 percent of the schools reported that 12th graders must complete 30 minutes each night and 20 percent reported 120 minutes of homework for 12th graders. Table 42 shows more detail about homework expectations.

Table 42: Minimum High School Homework Requirements

Time Required	9th Grade	10th Grade	11th Grade	12th Grade
30 Minutes	44%	44%	44%	44%
60 Minutes	25%	25%	19%	13%
90 Minutes	25%	25%	31%	25%
120 Minutes	6%	6%	6%	19%

Source: Maine Public School Census Survey, 2002.

41. Percent of High School Students Completing Mathematics and Science Courses

In order to achieve the Learning Results standards, students need opportunities to learn the content and skills of each discipline. In the 2000-2001 Maine Public School Census Survey, principals were asked to indicate the percent of high school students who will have completed different courses in mathematics and science by the time they are graduated from high school. While completion of standards courses is not the only way students may acquire the knowledge and skills found in the Learning Results, participation in these courses is the only statewide indicator currently available for describing the academic opportunities offered Maine's high school students.

Table 43 reports the estimated percent of students statewide who will have completed selected mathematics courses by high school graduation. Almost three-fourths of Maine's students will have completed Algebra I, and two-thirds, Geometry. More than half will have completed Algebra II. One-fourth will have completed Pre-algebra, one-fifth, Trigonometry, and close to one-fifth will have taken Computer Science. However, only about one in fourteen high school students will have taken a Calculus course.

There have been some changes in participation in certain courses since the Maine Public School Census Survey 1998-99. The percent of students having taken Review and General Mathematics and Pre-algebra decreased by more than half. Also, the percent of students taking Computer Science and Statistics decreased substantially. There was increased participation, however, in AP Calculus

Table 43: Percent Completing Mathematics Courses

Mathematics Courses	Percent (%) Taking Course by Graduation	Mathematics Courses	Percent (%) Taking Course by Graduation
Review Mathematics	5%	Trigonometry/Pre-calculus	21%
General Mathematics	11%	Calculus	7%
Pre-algebra	25%	AP Calculus	4%
Algebra I/Integrated Math I	74%	Statistics	3%
Algebra II/Integrated Math II	57%	Computer Science	17%
Geometry	63%	Other	11%

Source: Maine Public School Census Survey, 2002.

(from four percent to nine percent). Other course participation remained relatively the same.

Course completion patterns for science appear in Table 44. Approximately 60 percent of Maine students will have completed a Physical Science course by graduation time, fifty percent will have taken Chemistry, and 38 percent, Earth Science. Almost one-third will have taken Physics. About one in seven students will have taken Environmental Science and Integrated Science. One in ten students will have taken General Science. Caution must be used in interpreting these findings because there is considerable variation in course titles used throughout the state. Many students may have completed courses that contain content from different courses on this standardized course listing, as evidenced by the large percent (59 percent) of students who will have completed courses from the Other category in the table.

As with the Mathematics courses, there were changes in participation in science courses since the 1998-99 Census Survey. Participation rates decreased in General Science, Physical Science, Earth Science, Environmental Science, Integrated Science, and Technology with slight increases in Chemistry and Physics. Further study is necessary to discover whether these reductions in participation were the result of reporting ambiguities or an actual trend.

It is also important to note, both in the case of mathematics and science, that the findings from the survey report *estimated* percentages of course completion. The percentages may vary widely among the schools depending upon course availability, course schedules, and the number of students prepared academically to take the courses.

Table 44: Percent Completing Science Courses

Science Courses	Percent (%) Taking Course by Graduation	Science Courses	Percent (%) Taking Course by Graduation
General Science	9%	Physics	29%
Physical Science	58%	Technology (taught as a science course)	3%
Earth Science	38%	AP Biology	3%
Environmental Science	14%	AP Chemistry	2%
Integrated Science	16%	AP Physics	1%
Chemistry	50%	Other	59%

Source: Maine Public School Census Survey, 2002.

42. Percent of High School Students Completing Advanced Placement Courses

Maine's students need to be ensured opportunities to achieve their full academic potential. One measure of opportunity is the participation of students in Advanced Placement (AP) courses. Students who successfully complete AP courses and earn above a designated score on the standardized AP tests become eligible to receive college credits.

Table 45 reports the average percent of students in Maine's high schools who will have taken Advanced Placement course(s) upon graduation, as reported by principals in the 2001-2002 Maine Public School Census Survey. As indicated in the table, only small percentages of Maine high school students will have completed Advanced Placement courses. The highest participation rates were in AP English (6.5 percent), and AP History (5.6 percent). The rate in AP Calculus was 4.3 percent. Several other content areas showed lower rates of participation. It is important to note that course availability, course schedules, and academic preparation most likely influence these participation rates. (More information on participation rates may be found in the "Advanced Placement Test" indicator.)

Table 45: Percent Completing AP Courses

Advanced Placement Courses	Percent (%) Taking Course by Graduation	Advanced Placement Courses	Percent (%) Taking Course by Graduation
AP English	6.5%	**AP Government**	1.0%
AP History	5.6%	**AP Physics**	1.0%
AP Calculus	4.3%	**AP French**	0.6%
AP Biology	2.6%	**AP Spanish**	0.5%
AP Studio Art	2.5%	**AP German**	0.3%
AP Chemistry	1.0%	**AP Art History**	0.2%
AP Economics	1.0%	**AP Latin**	0.1%
AP European History	1.0%		

Source: Maine Public School Census Survey, 2002.

43. Educator Shortages in Maine's Public Schools

Recently, both at state and national levels, there has been a growing concern over the availability of qualified new teachers who would replace those leaving the profession because of retirement or other reasons. In Maine for 1999-00, 30.2 percent of full-time teachers were 50 years or older. Nationally, between the 1993-94 and 1994-95 school years, 68.8 percent of public school teachers over the age of 50 left teaching, retirement being the reason most often reported.

In 1999, the Maine Education Policy Research Institute conducted a survey of the state's public school principals. Approximately 70 percent of Maine schools responded. The Maine Public School Census Survey asked principals to indicate the supply of qualified educators who had applied for openings in their schools in the past three years. The scale was based on a continuum ranging from *considerable shortage*, *balanced supply and demand*, to *considerable surplus* of qualified candidates. Table 46 on the following page reports the findings of the survey.

Most elementary school principals reported no shortages in qualified elementary teacher candidates, but slight or considerable shortages in other areas. The most commonly reported shortages were special education teachers, guidance/ counseling staff, and librarians.

Middle school principals also reported slight or considerable shortages in a number of areas. For regular teaching staff, the most commonly reported shortages were in foreign language, science, and special education, followed by mathematics and visual and performing arts. For other professional staff, the greatest shortages were in technology specialists and special education directors.

In the case of high schools, most principals reported shortages in several areas. The most commonly reported shortages for regular teaching staff were in foreign language, mathematics, science, and special education. The greatest shortages for other professional staff were in technology specialists followed by special education directors.

A report published in 1999 by the American Association for Employment in Education (AAEE) reported that nationally, the greatest teaching shortages were in areas of special education, physics, and bilingual education.

When AAEE looked at teacher supply and demand by region, they found

that in the northeast region, the teaching areas in which there were *considerable shortages* were the following: bilingual education, computer science, English as a second language, chemistry, physics, and some areas in special education. The teaching areas in which there were *some shortages* were: home economics, journalism and languages, mathematics, reading, biology, earth science, special education areas, theater, and speech pathology. In the case of elementary schools, AAEE found that in the northeast region there was *some surplus* in the field of elementary classroom teachers and physical education. In reference to special education shortages, the Council for Exceptional Children found that in 1997 about 50,000 special education positions either remained vacant or were newly filled by teachers who lacked full state certification. Thus, these studies suggest that the supply of qualified candidates, as reported by Maine's principals, parallels other national and regional findings.

Table 46: Educator Shortages in Maine Elementary, Middle, and High Schools

Percent of Principals that Reported Slight or Considerable Shortages

	Elementary School	Middle School	High School
Elementary Classroom Teachers	22%	-	-
Elementary Education Technicians	39%	-	-
English/Language Arts Teacher	-	31%	37%
Mathematics Teacher	-	72%	89%
Science Teacher	-	78%	87%
Social Studies Teacher	-	30%	20%
Foreign Languages Teacher	-	94%	91%
Visual or Performing Arts Teacher	-	72%	69%
Health or Physical Education Teacher	-	40%	33%
Career Preparation Teacher	-	58%	48%
Special Education Teacher	76%	76%	82%
Special Education Directors	-	82%	84%
Guidance/Counseling Staff	69%	74%	74%
Librarians	62%	68%	76%
Technology Coordinators/Specialists	-	85%	87%
Nurses	55%	55%	59%

Source: Maine Education Policy Research Institute, 1999.

44. Cocurricular and Extracurricular Opportunities

Cocurricular and extracurricular activities serve a major role in developing identity and having a positive impact on academic achievement. Cocurricular activities are defined as academic opportunities such as yearbook, National Honor Society, student council, debate, and performance opportunities like band, chorus, and drama. Athletic opportunities like soccer, baseball, track, and cheerleading are defined as extracurricular activities.

According to the *2001-2002 Maine Public School Census*, Maine's middle and secondary schools provided a variety of cocurricular and extracurricular opportunities. Table 47 provides a comparison of the mean participation rates and activity opportunities at the middle and secondary levels. In both middle and high schools approximately 51 percent of students participated in cocurricular and extracurricular activities.

In terms of athletic extracurricular activities, sports offerings of highest incidence in middle schools were baseball, softball, basketball, and soccer. These were offered by 86 percent of middle schools. Following these, four sports—spring track, winter cheerleading, cross-country, and field hockey—were offered by more than 66 percent of middle schools responding to the survey.

Where high schools were concerned, 94 percent offered basketball, soccer,

Table 47: Middle/Secondary Activity Opportunities

	Mean Student Participation Rate	Most Common Cocurricular Opportunities	Most Common Extracurricular Opportunities
Middle Schools	50%	Chorus, Band, Math Club, Drama Club, Yearbook Club, Student Council	Baseball, Softball, Basketball, Soccer, Spring Track, Cheerleading, Cross-country, Field Hockey
Secondary Schools	52%	Student Council, Chorus, National Honor Society, Band, Drama Club, Math Club, Yearbook, Newspaper, Foreign Language Club	Basketball, Soccer, Softball, Baseball, Cheerleading, Golf, Cross-country, Spring Track

Source: 2001-2002 Maine Public School Census Survey, 2002.

softball, and baseball. More than 79 percent offered winter cheerleading, golf, cross-country, and spring track.

The incidence of cocurricular activities was examined as well. Very few middle schools offered opportunities in orchestra, debate, and Odyssey of the Mind. However, 86 percent or more offered chorus, student council, and band. More than one-half to three-fourths of the schools offered math, drama, and yearbook clubs.

At the high school level, at least 91 percent of the schools offered yearbook, student council, National Honor Society, chorus, and band. One-half to three-fourths of the high schools offered drama, math, newspaper, and foreign language clubs.

There was no significant statistical relationship shown between school size and the *percentage* of students involved in either extracurricular or cocurricular activities at the middle and high school levels. However, in terms of the *numbers* of students participating in certain activities, the most popular cocurricular activity was science fair in the middle schools, and band in the high schools. Concerning extracurriculars, the most popular program was basketball at both middle and high schools.

45. Reading Recovery

Reading Recovery is an early intervention program that provides assistance for first graders having difficulty with literacy learning. According to the College of Education and Human Development at the University of Maine, the program aims to help first graders develop effective reading and writing strategies in order to work within an average range of classroom performance. It involves an intensive one-on-one session between the child and the Reading Recovery teacher for 30 minutes a day, five days a week. The extra instruction is short-term, lasting usually 12-20 weeks, or at such time as the student achieves the average literacy level of the other first graders in the school.

The College of Education and Human Development at the University of Maine reports that the program has been implemented in 40 percent of Maine elementary schools. More than 100 school districts and 213 schools participate. Figure 40 reports the number of children served by the program between 1992-93 and 2002-03.

Data showed that in 2002-03, the program served 2,457 children, or 17.5 percent of Maine first graders. Of the 2,457 students served, 1,411 students, or 57.4 percent, met the stringent criteria for discontinued service within 20 weeks and 22 percent were recommended for further support. The program also provides professional development for teachers. In 1992-93, there were 75 Reading Recovery teachers in Maine. By school year 2002-03 there were 308 teachers qualified to provide instruction in the program.

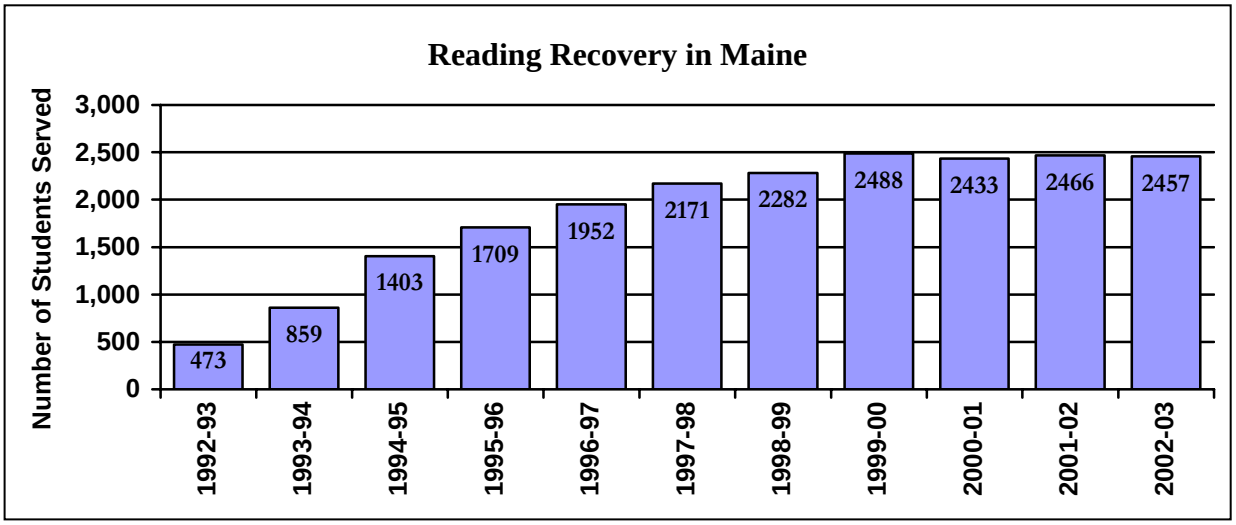


Figure 40: Source: College of Education and Human Development, University of Maine, 2003.

Results Indicators

Results Indicators provide a tool to assess the productivity and accomplishments of education in Maine. This section provides information on the following indicators:

46. Maine Educational Assessment
47. Scholastic Assessment Test
48. Advanced Placement Test
49. National Assessment of Educational Progress
50. Graduation Rate for Maine's High School Seniors
51. Yearly High School Dropout Rate
52. Post-Secondary Education
53. Aspirations of Students Taking the SAT
54. Maine's College Graduates: *Where They Go and Why*

46. Maine Educational Assessment

In 1997, the Maine Legislature passed a law establishing common statewide standards for learning called Learning Results. These articulated what students should know and be able to do in each subject. Assessment of student achievement of the Learning Results is accomplished through both statewide and local tests. The new statewide test, the Maine Educational Assessment (MEA), is a significant revision of the old MEA that has been administered since 1985-86. Focusing on whether a student's performance meets certain content standards, the tests cover the following content areas: reading, writing, mathematics, science and technology, social studies, visual and performing arts, and health. The MEA is administered to all fourth, eighth, and eleventh graders.

In the revised test, students are identified as meeting certain levels of achievement (performance levels) that correspond with learning standards in the Maine Learning Results. The performance levels and score ranges are described as the following: **Exceeds the Standards (561 to 580):** The student's work demonstrates exemplary accomplishment of content knowledge, analysis, problem solving, and communication skills. **Meets the Standards (541 to 560):** The student's work demonstrates consistent accomplishment of content knowledge, analysis, problem solving, and communication skills. **Partially Meets the Standards (521 to 540):** The student's work demonstrates inconsistent accomplishment of content knowledge, analysis, problem solving, and communication skills. **Does Not Meet the Standards (501 to 520):** The student's work demonstrates limited command of content knowledge, analysis, problem solving, and communication skills.

Table 48, on the following page, provides the results of the 2002-03 MEA for grades four, eight, and eleven in all seven content areas. The table shows the percentages of students who achieved at each of four performance levels as well as the average number of points earned (mean scaled score) by each grade.

The 2002-03 MEA results showed that in all but four areas the largest block of fourth, eighth, and eleventh graders fell into the “partially meets the standards” category. The four cases that differed from this pattern were in reading, mathematics, and visual and performing arts. In reading, 48 percent of fourth graders scored at the level of “meets the standards” as opposed to 40 percent scoring in the “partially meets the standards” category.

Table 48: 2002-03 Maine Educational Assessment Statewide Summary Results

Standards Category	2002-2003 MEA		
Reading	**Grade 4**	**Grade 8**	**Grade 11**
Exceeds	1%	1%	1%
Meets	48%	44%	45%
Partially Meets	40%	43%	43%
Does Not Meet	11%	12%	10%
Mean Scaled Score*	539	537	539
Writing	**Grade 4**	**Grade 8**	**Grade 11**
Exceeds	<1%	<1%	2%
Meets	12%	41%	31%
Partially Meets	73%	54%	57%
Does Not Meet	15%	5%	10%
Mean Scaled Score*	530	537	537
Math	**Grade 4**	**Grade 8**	**Grade 11**
Exceeds	2%	<1%	1%
Meets	25%	17%	19%
Partially Meets	43%	50%	40%
Does Not Meet	28%	32%	41%
Mean Scaled Score*	532	528	527
Science	**Grade 4**	**Grade 8**	**Grade 11**
Exceeds	<1%	1%	1%
Meets	5%	13%	11%
Partially Meets	65%	58%	56%
Does Not Meet	31%	28%	32%
Mean Scaled Score*	526	528	527
Social Studies	**Grade 4**	**Grade 8**	**Grade 11**
Exceeds	1%	1%	2%
Meets	28%	23%	28%
Partially Meets	53%	54%	36%
Does Not Meet	17%	22%	33%
Mean Scaled Score*	534	532	530
Visual & Performing Arts	**Grade 4**	**Grade 8**	**Grade 11**
Exceeds	5%	4%	<1%
Meets	22%	24%	20%
Partially Meets	47%	39%	37%
Does Not Meet	27%	33%	43%
Mean Scaled Score*	531	531	525
Health	**Grade 4**	**Grade 8**	**Grade 11**
Exceeds	2%	<1%	<1%
Meets	31%	36%	29%
Partially Meets	65%	61%	67%
Does Not Meet	1%	3%	4%
Mean Scaled Score*	540	539	538

Source: Maine Department of Education, 2003.

* Scaled Score Range from 501-580

Likewise, 45 percent of 11th graders and 44 percent of 8th graders scored in "meets the standards", as opposed to 43 percent of both 8th and 11th graders in "partially meets the standards."

In the mathematics category, eighth graders showed a marked improvement from 2001-02 going from 40 to 32 percent in the "does not meet" standards level and from 39 to 50 percent in the "partially meets" standards level. At the same time, eleventh graders had a slight decrease in performance with 41 percent in the "does not meet" standards level and 40 percent in the "partially meets" standards level. In the area of visual and performing arts, the largest block of 11th graders (43 percent) scored in the "does not meet" the standards category.

Although significantly fewer in number, some students from each grade achieved the highest achievement level, "exceeds" standards. At this level, the students demonstrated exemplary accomplishment of content knowledge, analysis, problem solving, and communication skills. The highest percentages "exceeding" the standards were eighth graders (4 percent) and fourth graders (5 percent) in the visual and performing arts category.

Areas where students showed most difficulty were mathematics, science, social studies, and visual and performing arts. Approximately one third of eleventh graders (32-43 percent) "did not meet" the standards in these four content areas. Of those eighth graders who took the MEA, 32 percent "did not meet" the standards in mathematics, 33 percent in visual and performing arts, 28 percent in science, and 22 percent in social studies. Fourth graders showed their highest difficulty to be in science: 31 percent "did not meet" the standards, demonstrating limited command of content knowledge, analysis, problem solving, and communication skills. Mathematics (28 percent) and the arts (27 percent) were also areas of high difficulty for fourth graders.

The Maine Department of Education reported several observations regarding the 2002-03 MEA results: (1) Scores were generally flat over the past five years; (2) Performance was best in reading and writing and weakest in mathematics and science/ technology; (3) A gender gap exists wherein females continue to outperform males in reading and writing, while males and females perform more comparatively in mathematics and science/technology; and (4) Performance levels are now being assessed for the following subgroups: gender, ethnicity, identified disability, student mobility, internet connection, and impact of part-time work.

47. Scholastic Assessment Test

The Scholastic Assessment Test (SAT) is a widely used achievement test required for admission by many colleges and universities. The SAT assesses verbal and mathematical abilities and is taken by high school juniors and seniors. Maine's participation rate exceeded the national rate in 2003. Students in Maine who took the SAT equaled 70 percent of high school graduates. Nationally, only 48 percent of graduates took the SAT in 2003, according to The College Board, the national organization that sponsors the SAT.

The average verbal score of Maine students in the year 2003 was 503 (out of a possible 800 points). The average mathematics score was 501. This compared with national averages of 507 (verbal) and 519 (mathematics). Table 49 reports Maine results with those of New Hampshire, Vermont, and the United States. Maine students generally scored lower than students in the two neighboring states and the United States.

The College Board reported gender disparities in SAT performance across the nation. Males scored slightly higher than females in verbal and significantly higher in mathematics. The verbal for males was 512 in the year 2003 while females scored 503. In mathematics, males scored 537 while females scored 503.

When Maine scores were analyzed according to gender, the results showed male students achieving higher test scores than females. On the verbal test, the average score for Maine male students was 507, eight points higher than female students (499). In mathematics, the disparity was greater. Male students scored 520 on average while female students averaged 483. Figures 41 and 42, on the following page, show the scores by gender.

Table 49: Comparison of SAT Results, 2003.

	Verbal	Mathematics
Maine	**503**	**501**
New Hampshire	522	521
Vermont	515	512
United States	507	519

Source: The College Board, 2003.

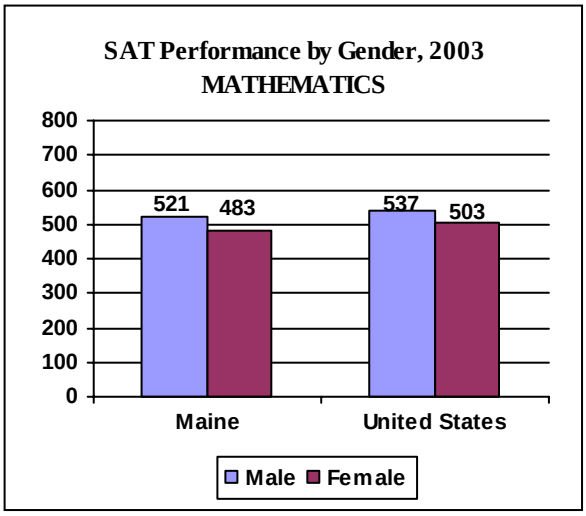


Figure 41: Source: The College Board, 2003.

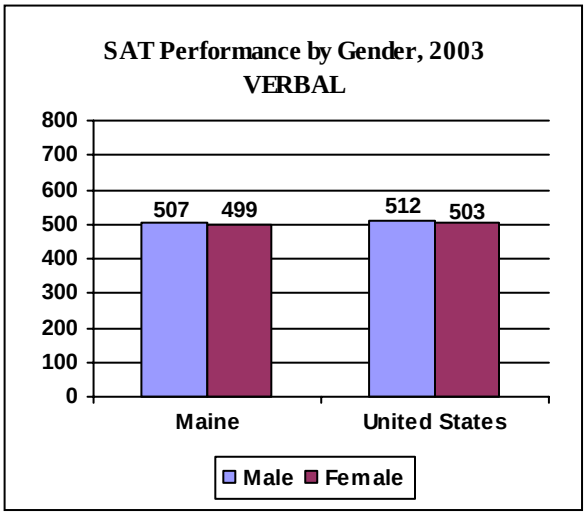


Figure 42: Source: The College Board, 2003.

The College Board also reported a strong relationship between parental education and student SAT performance. For example, in Maine, students of parents holding a bachelor's degree had an average combined SAT score approximately 90 points higher than those with parents who had earned only a high school diploma, as shown in Table 50.

Table 50: Highest Level of Parental Education and SAT Achievement in Maine, 2003.

	SAT Verbal	SAT Mathematics
No High School Diploma	427	435
High School Diploma	473	473
Associate's Degree	486	486
Bachelor's Degree	519	518
Graduate Degree	555	549

Source: The College Board, 2003.

48. Advanced Placement Test

Students have the opportunity to take Advanced Placement (AP) courses which allow them to pursue college-level studies while still in high school. Those students who achieve a qualifying score on the national AP exams may receive college credit, placement, or both. AP courses and exams are offered in 19 subject areas including calculus, English, U.S. history, science, foreign languages, fine arts, and computer science.

The number of public high schools in Maine that offered AP courses increased from 101 in 2002 to 103 in 2003, or 85.8 percent of all public high schools. In New Hampshire, 88.5 percent offered AP, and in Vermont, 84.4 percent. The national average was 65.5 percent of public schools, as shown in Figure 43.

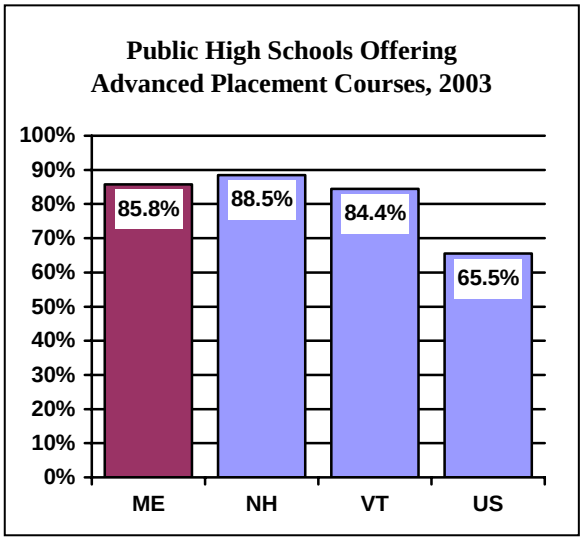


Figure 43: Source: The College Board, 2003.

In 2003, the number of students in Maine's public and private schools who took an AP exam equaled 4,565 students, or 13.6 percent. The national average was 14.7 percent, while New Hampshire had 11.0 percent of its students taking AP exams and Vermont, 12.8 percent.

A score of three or above qualifies a student for possible college credit. Maine's qualifying scores, while exceeding the average by 0.9 percent, were lower than both Vermont's and New Hampshire's scores, as shown in Table 51.

Table 51: Exam Scores that Qualify for possible College Credit, 2003

State	Percent of Exam Scores Three and Above
Maine	**62.4%**
New Hampshire	68.3%
Vermont	67.3%
United States	61.5%

Source: The College Board, 2003.

A more detailed breakdown of scores from Maine public and private schools in 2003 shows that those exams that were graded "five", the highest grade possible, numbered 742, or 11.0 percent of all exams taken by Maine students. This was lower than the national average of 13.9 percent, and those of New Hampshire (16.0 percent), and Vermont (13.9 percent).

49. National Assessment of Educational Progress

Maine students have a good record of excelling on the National Assessment of Educational Progress (NAEP), also known as "The Nation's Report Card." The NAEP serves as a benchmark for how students across the country are performing in various subjects including reading, writing, mathematics, science, U.S. history, geography, civics, and visual and performing arts, and provides the best available way to compare performance across states.

The NAEP 2003 assessments were in Mathematics and Reading. This marks the first time students in all 50 states participated in the NAEP tests under the federal No Child Left Behind law. Prior to that federal education law, it was up to the states to decide whether to administer the NAEP test.

Figure 44 shows the performance in mathematics assessments of Maine fourth and eighth graders in 2003. Both grade levels scored above the national average scores – ranking 25th and 27th in the nation respectively – however both were slightly below the northeast region average scores.

The NAEP has established three levels of performance standards: Basic, Proficient, and Advanced. In 2003, 34 percent of Maine fourth graders who took the test performed at or above the Proficient level in mathematics. Nationally, approximately 31 percent of students performed at or above the Proficient level, while 38 percent of students in the northeast region did so. Maine eighth graders achieving at or above proficiency equaled 29 percent, exceeding the national average for eighth graders of 27 percent, but still slightly lower than the northeast average of 33, as shown in Table 52.

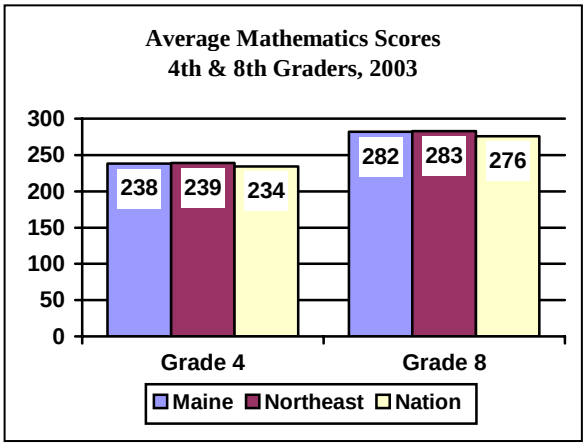


Figure 44: Source: National Assessment of Educational Progress, 2003.

Table 52: Percent of Students Achieving "At or Above Proficient" in Mathematics

Students	Maine	Northeast	United States
Fourth Graders	34%	38%	31%
Eighth Graders	29%	33%	27%

Source: National Assessment of Educational Progress, 2003.

Maine fourth graders who took the NAEP Reading Assessment in 2003 scored higher than students in most other states, ranking 6th in the nation. Maine students achieved an average score of 224. This was significantly higher than the national average of 216, although slightly lower than the northeast average of 225, as shown in Figure 45.

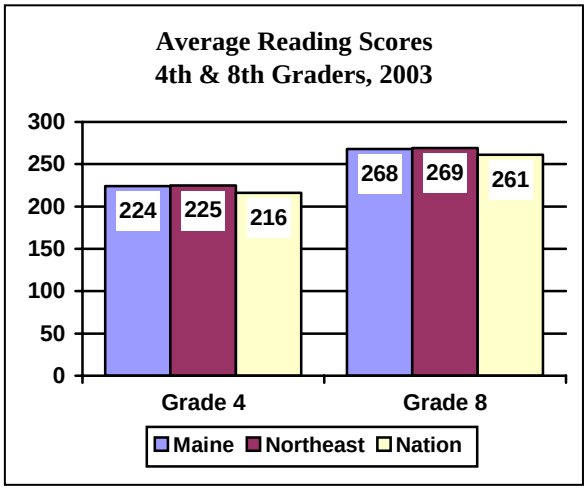


Figure 45: Source: National Assessment of Educational Progress, 2003.

Eighth graders in Maine performed well also, with an average score of 268; they also are ranked 6th in the nation for reading proficiency. This was higher than the national average score of 261, but also slightly lower than the northeast average score of 269.

Table 53 shows that 36 percent of Maine fourth graders scored at or above the Proficient level. This was lower than the northeast percentage of 38 but higher than the national percentage of 30. Eighth graders in Maine scored at 37 percent at or above Proficient. The national and northeast percents for eighth graders were 30 and 38, respectively.

Table 53: Percent of Students Achieving "At or Above Proficient" in Reading

Students	Maine	Northeast	United States
Fourth Graders	36%	38%	30%
Eighth Graders	37%	38%	30%

Source: National Assessment of Educational Progress, 2003.

50. Graduation Rate for Maine's High School Seniors

The number of adults having attained a high school degree or equivalent is one indicator of the long-term economic viability of Maine. The graduation rate has an impact on the aggregate earning power within the state and affects state tax revenues.

Table 17 shows high school graduation rates for Maine between 1998 and 2002. The graduation rate is computed by tracking the number of students who begin with a class in the ninth grade and graduate with that same class four years later in the twelfth grade, thus accounting for those students who drop out. For instance, if 100 students form a ninth grade class, and five students drop out each of the four high school years, ending with a total of 80 students who graduate at the end of the twelfth year, the graduation rate will be 80.0 percent. Graduates include regular diploma recipients, and those who completed programs other than the regular secondary program, such as special education Individual Education Plans (IEPs). Students who received General Equivalency Diploma's (GED) are not included.

Table 54 shows that the overall high school graduation rate for Maine in 2002 was 86.7 percent. This rate was slightly lower than that of 2001 which was a five year high of 87.4 percent.

Table 54: Graduation Rate, 1998-2002

Graduation Year	Number of Graduates (Includes Special Education Graduates)	Number of Dropouts	Graduation Rate
1998	12,522	1,870 (since 1994-95)	87.01%
1999	13,275	2,316 (since 1995-96)	85.15%
2000	13,419	2,041 (since 1996-97)	86.80%
2001	13,722	1,973 (since 1997-98)	87.43%
2002	13,653	2,093 (since 1998-99)	86.71%

Source: Maine Department of Education, 2003.

51. Yearly High School Dropout Rate

The high school *yearly* dropout rate is also an indicator of the long-term economic viability of the state. The high school dropout rate, computed according to federal guidelines, is determined by dividing the total number of students in grades nine through twelve who have dropped out of school during a *specific school year* by the total nine through twelve enrollment figure on October 1st of that school year. For example, if 100 students were enrolled, grades nine through twelve, on October 1st and only 95 students completed the school year, the dropout rate would be five percent.

Meeting very specific definitions and categorical guidelines, it is each school district that identifies a student as a dropout, one who has "left school without completing a state or school administrative unit approved secondary program," according to the Maine Department of Education. The dropout definition excludes from the dropout count students who leave school and return, most transfers, and students who participate in alternative state-approved secondary programs. These may include programs such as Job Corps, hospital/homebound instruction, residential special education, correctional institutions, and community or technical colleges.

Table 55 reports the yearly dropout rates for the last ten years. Within this

Table 55: Yearly Public High School Dropout Rates

Year	Secondary Student Enrollment	Number of Dropouts	Dropout Rate
1992-93	58,498	1,644	2.81%
1993-94	59,215	1,719	2.90%
1994-95	60,127	1,883	3.13%
1995-96	60,707	1,830	3.01%
1996-97	61,412	1,874	3.05%
1997-98	62,291	1,926	3.09%
1998-99	59,744	1,991	3.33%
1999-00	60,685	1,999	3.29%
2000-01	61,512	1,929	3.14%
2001-02	62,295	1,802	2.89%

Source: Maine Department of Education, 2003.

decade, the rates have fluctuated between a low of 2.81 percent in 1992-93 to a high of 3.33 percent in 1998-99.

A wide range in dropout rates exists among Maine's counties. Table 56 presents the difference in yearly dropout rates by county from 1996-97 to 2001-02. The dropout rates for 2001-02 range from a low in Aroostook County of 1.16 percent to a high of 4.66 percent in Piscataquis County. There was a decrease in dropout rates in 2001-02 in eleven of the 16 counties in Maine, resulting in a slight decrease in the overall yearly dropout rate from 3.14 percent to 2.89 percent of Maine public high school students. The largest decrease occurred in Knox County, while the largest increase was in Franklin County.

Table 56: Six-year Comparison of County Public School Dropout Rates

County	Dropout Rate						
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	One year % change
Androscoggin	3.57%	3.04%	3.94%	3.33%	4.49%	3.27%	-1.22%
Aroostook	1.71%	1.42%	2.18%	2.65%	1.66%	1.16%	-.050%
Cumberland	3.88%	3.48%	3.94%	3.84%	2.62%	2.98%	+0.36%
Franklin	1.53%	2.45%	2.03%	3.05%	1.50%	4.01%	+2.51%
Hancock	3.71%	4.10%	4.64%	4.73%	4.02%	6.02%	+2.00%
Kennebec	1.99%	2.94%	2.93%	2.64%	1.94%	2.60%	+0.66%
Knox	1.46%	2.49%	2.85%	2.53%	3.54%	1.80%	-1.74%
Lincoln	3.89%	2.37%	2.15%	2.69%	3.91%	4.32%	+0.41%
Oxford	4.05%	4.18%	3.60%	3.24%	3.89%	3.45%	-0.44%
Penobscot	3.31%	3.08%	2.88%	3.76%	3.35%	2.79%	-0.56%
Piscataquis	3.25%	4.05%	2.93%	3.17%	4.72%	4.66%	-0.06%
Sagadahoc	2.77%	3.72%	4.19%	4.49%	4.34%	3.17%	-1.17%
Somerset	3.44%	3.88%	3.16%	3.13%	3.41%	1.71%	-1.70%
Waldo	3.56%	3.61%	4.41%	2.32%	3.17%	3.47%	+0.30%
Washington	2.97%	3.78%	4.04%	3.26%	3.63%	3.57%	-0.06%
York	2.82%	2.77%	3.08%	2.73%	3.31%	2.59%	-0.72%
State of Maine	**3.08%**	**3.12%**	**3.33%**	**3.29%**	**3.14%**	**2.89%**	**-0.25%**

Source: Maine Department of Education, 2003.

52. Post-Secondary Education

The number of students continuing to post-secondary schools is another indicator of student achievement. Post-secondary schools encompass formal education or training beyond a high school program, including college and university programs, as well as community colleges and formal training programs.

In 2002, a total of 9,566, or 69.0 percent of seniors (including those receiving diplomas from various alternative secondary programs) graduating from public and private Maine schools reported that they *intended* to pursue higher education. (Those who actually enroll are fewer. See indicator "Projected Educational Attainment of Maine Public School Ninth Grade Students".)

A review of *public* school data alone showed that in 1993-94, 7,213 students, or 58.2 percent of seniors graduating from *public* schools, intended to enroll in post-secondary education, while in 2001-02, 8,671 students, or 68.6 percent of public school graduating seniors said they intended to study at the post-secondary level.

Maine *private* school data showed that the rate of seniors who intended to enroll in post-secondary schools exceeded that of public school students. For instance, in 1993-94, 89.7 percent of seniors attending private school indicated they intended to enroll in post-secondary schools; in 2001-02, 90.1 percent of graduates intended to do so. Figure 46 shows the recent history of both public and private school graduating seniors in Maine who reported that they intended to pursue post-secondary education.

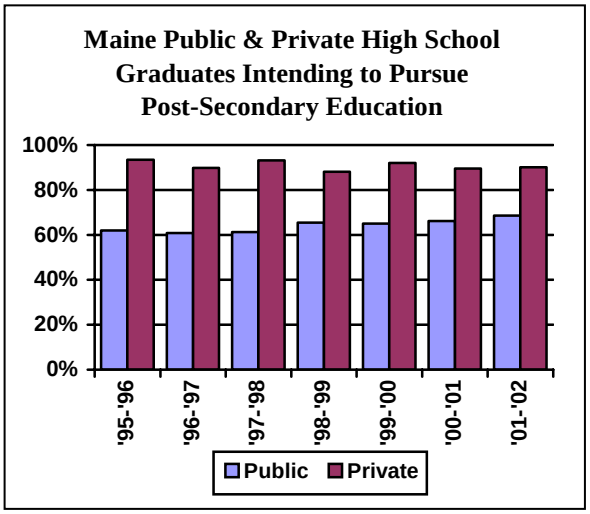


Figure 46: Source: Maine Department of Education, 2003.

Rates of *intended* enrollment in education beyond high school by *public* school students varied among Maine's counties in 2001-02. For instance, Waldo County had the lowest rate (58.2 percent) while Cumberland County and Aroostook County tied for the highest rate (73.8 percent) in 2001-02. Between 2000-01 and 2001-02, all but three counties experienced an increase in the rates of graduates going on to post-secondary institutions, as shown in Table 57 on the next page.

Table 57: Rates of Public High School Graduates Intending to Pursue Post-Secondary Education by County

County	*Intended* Post-Secondary Enrollment						
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	One Year % Change
Androscoggin	51.1%	49.5%	55.9%	57.8%	64.6%	68.5%	+3.9%
Aroostook	63.0%	67.5%	69.0%	68.9%	69.5%	73.8%	+4.3%
Cumberland	68.1%	68.3%	69.0%	72.4%	74.6%	73.8%	-0.8%
Franklin	60.6%	62.3%	64.7%	73.8%	66.6%	71.8%	+5.2%
Hancock	54.6%	55.8%	60.5%	55.6%	56.3%	67.6%	+11.3%
Kennebec	65.8%	61.1%	68.7%	69.8%	70.7%	72.5%	+1.8%
Knox	59.6%	63.9%	64.1%	56.2%	58.8%	60.9%	+2.1%
Lincoln	56.9%	56.4%	51.8%	61.1%	62.1%	71.1%	+9.0%
Oxford	51.3%	56.4%	61.2%	57.9%	59.1%	68.7%	+9.6%
Penobscot	63.9%	63.7%	65.0%	67.0%	66.9%	66.6%	-0.3%
Piscataquis	51.9%	68.0%	69.3%	55.4%	58.1%	63.1%	+5.0%
Sagadahoc	57.6%	50.2%	67.1%	57.9%	54.9%	63.9%	+9.0%
Somerset	52.2%	46.3%	56.9%	55.7%	52.5%	58.7%	+6.2%
Waldo	56.9%	58.5%	66.6%	69.8%	64.2%	58.2%	-6.0%
Washington	58.5%	59.3%	61.1%	59.8%	64.2%	64.7%	+0.5%
York	58.7%	60.8%	66.4%	61.7%	66.3%	67.2%	+0.9%
Total	**60.3%**	**60.5%**	**64.8%**	**64.8%**	**66.2%**	**68.6%**	**+2.4%**

Source: Maine Department of Education, 2003.

53. Aspirations of Students Taking the SAT

Student aspirations, while difficult to measure, are important indicators of the attitudes and beliefs of students in Maine and across the nation. One measure of aspirations is the post-secondary degree plans of students. Students who took the SAT I (Reasoning Test) in 2003 indicated a range of degree-level goals. As shown in Table 58, 32 percent of Maine test-takers said they planned to attain a bachelor's degree. Twenty-five percent said they planned to complete a master's degree, 13 percent said a doctoral degree, four percent said an associate's degree, and one percent said a certificate program. The remaining 25 percent were either undecided or indicated another type of degree.

A slightly higher percentage of Maine test-takers planned on a bachelor's degree (32 percent) than students in New Hampshire (29 percent), Vermont (31 percent), and the United States (23 percent). However, higher percentages of students in New Hampshire planned on studying for a master's degree than test-takers in Maine and Vermont. The national average percent of students intending to study for a master's degree, at 30 percent, exceeded that of each of the three states. The percentages of students in Maine and New Hampshire who intended to earn a doctorate were slightly above their counterparts in Vermont. Once again, the national average of 22 percent exceeded those of Maine, New Hampshire, and Vermont.

Table 58: Comparison of SAT Test-Taker's Post-Secondary Plans
Maine, New Hampshire, Vermont, and the United States - 2003

State	Certificate	Associate's	Bachelor's	Master's	Doctoral
Maine	**1%**	**4%**	**32%**	**25%**	**13%**
New Hampshire	1%	3%	29%	27%	13%
Vermont	1%	3%	31%	23%	12%
United States	1%	1%	23%	30%	22%

Source: The College Board, 2003.

54. Maine's College Graduates: *Where They Go and Why*

Approximately one-half of Maine's high school graduates leave Maine to attend college. Too little is known about the reasons for their decisions, how many leave initially but return to earn their degrees from Maine institutions, and why Maine college graduates decide to live and work in Maine or in another state. *Where They Go and Why*, a joint study by the Center for Education Policy, Applied Research and Evaluation (CEPARE) and the Finance Authority of Maine (FAME), attempted to answer these questions.

In the spring of 2002, copies of the *Higher Education Survey 2002* were mailed to a sample population of Maine residents who had earned a college degree in 1998. The following are the major findings of the study:

- The reputation of colleges, the quality of their programs, and school size are the most important factors to Maine's high school graduates in deciding where to attend college.
- Personal preferences for attending college in Maine or in another state, along with financial aid packages they were offered, are also significant considerations for Maine high school seniors.
- Many of the 1998 college graduates in the sample who left Maine initially to attend college, transferred back to a Maine college or university to complete their degree program.
- Approximately two-thirds of 1998 college graduates samples chose to remain in Maine, or to return to Maine, to live and work.
- Where Maine's residents who have earned a college degree choose to live and work depends largely on whether family and social ties, or career opportunities are more important to them.
- Over one-half of Maine's best and brightest college graduates in 1998 chose to stay in Maine, or to return to Maine to earn their college degree.
- However, approximately three out of every four of Maine's best and brightest ultimately choose to live and work outside of Maine.

End Note

The preceding pages have presented information on K-12 public education in Maine. The information has been obtained from a variety of sources, and encompasses historical data and regional and national comparisons wherever possible. We hope this information is helpful and that it provides you a statewide perspective on Maine education.

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Appendices

Appendix A: Excerpts from legislation establishing the Maine Education Policy Research Institute.

Appendix B: Related publications.

APPENDIX A: Excerpts from Legislation Establishing the Maine Education Policy Research Institute

L.D. No. 1124

The Education Research Institute, referred to in this section as the "institute," is established to collect and analyze education information and perform targeted education research for the Legislature. The institute shall create and maintain an education information system that tracks important education data for kindergarten and grades one to 12. The institute shall also conduct targeted education research at the request of the Legislature.

1. Legislature to direct institute. The Legislature, through the joint standing committee of the Legislature having jurisdiction over education matters, shall direct the institute. The Legislature may appoint a University of Maine System employee to serve as Director of the Education Research Institute. The director shall consult with and act on behalf of the Legislature, performing such data collection, analysis and research as the Legislature may require.

2. Steering committee. The Education Research Institute Steering Committee, referred to in this section as the "steering committee," is established to advise the Legislature and the Director of the Education Research Institute on all matters related to the institute. Steering committee members must be appointed by the joint standing committee of the Legislature having jurisdiction over education matters for a term of two years. The steering committee shall meet at least four times each year and must include, but is not limited to, at least one member of the following:

A. The joint standing committee of the Legislature having jurisdiction over education matters;

B. the Department of Education;

C. the State Board of Education;

D. the University of Maine System;

E. the Maine School Management Association;

F. the Maine Education Association;

G. the Maine Municipal Association; and

H. the Maine Principals Association.

A member of the joint standing committee of the Legislature having jurisdiction over education matters shall serve as Chair of the Education Research Institute Steering Committee. The chair shall serve for a two-year term.

3. Location and access. The education information system and research results must be maintained by the Director of the Education Research Institute at the University of Maine System. The education information system and research results must be available for use by any interested group or individual. The institute shall charge a fee for use equal to the cost of providing documents, data tapes or other material.

APPENDIX B: Related Publications

The following is a list of some recent publications describing various aspects of Maine education.

Reports:

An Analysis of State Funding and Program Needs For Limited English Proficiency Students. Mark Kellis & Scott Brezovsky, Center for Education Policy, Applied Research and Evaluation, University of Southern Maine.

Assessing the Performance of Public Education in Maine: A National Comparison. Jaekyung Lee, College of Education and Human Development, University of Maine.

Assessing the Performance of Public Education in Maine: Factors Influencing School Differences. Jaekyung Lee, College of Education and Human Development, University of Maine.

Assessing the Performance of Public Education in Maine: Factors Influencing Student Performance. Jaekyung Lee, College of Education and Human Development, University of Maine.

Characteristics of High and Low Performing High Schools in Maine. A. Mavourneen Thompson, Maine Education Policy Research Institute, University of Southern Maine.

Characteristics of High and Low Performing Middle Schools in Maine. Patricia A. Tiernan, Center for Education Policy, Applied Research and Evaluation, University of Southern Maine.

Characteristics of High and Low Performing Schools in a Predominantly Rural State: Evidence from Elementary Schools. Rhonda Poliquin & Karen Johnson, Center for Education Policy, Applied Research and Evaluation, University of Southern Maine.

Co-curricular and Extracurricular Opportunities and Participation in Maine Secondary Schools. David L. Silvernail, Maine Education Policy Research Institute, University of Southern Maine.

Cost of Education Adjustments in States' School Funding Formulas. A. Mavourneen Thompson & David L. Silvernail, Maine Education Policy Research Institute, University of Southern Maine.

Essential Programs and Services: Equity and Adequacy in Funding to Improve Learning for All Children. Maine State Board of Education.

Essential programs and services: The basis for a new approach for funding Maine's public schools. Silvernail, D.L. & Bonney, W.L. (2001). Maine Policy Review, Vol 10 (1), 38-46.

Financial Characteristics of High and Low Performing Schools in a Predominantly Rural State. David L. Silvernail, Center for Education Policy, Applied Research and Evaluation, University of Southern Maine.

Financing Public K-12 Education: Examples of Taxation Options in Selected States, A. Mavourneen Thompson, Maine Education Policy Research Institute, University of Southern Maine.

Home and Rent Affordability by State of Maine Market Area for Teachers, Non-Teaching School Staff and School Administrators. David L. Silvernail, Maine Education Policy Research Institute, University of Southern Maine.

Increasing Postsecondary Enrollments in Maine. David L. Silvernail, Center for Education Policy, Applied Research and Evaluation, University of Southern Maine.

Impacts of Michigan's School Finance Reforms of 1994: Evidence to Date. A. Mavourneen Thompson, Maine Education Policy Research Institute, University of Southern Maine.

Maine's College Graduates: Where They Go and Why. David L. Silvernail, CEPARE, University of Southern Maine and Greg Gollihur, Finance Authority of Maine.

Maine Middle School Co-curricular Opportunities by Size. Constance M. Perry, Maine Education Policy Research Institute, University of Southern Maine.

Opportunities to Participate: Availability of Extracurricular and Cultural Opportunities for Middle Level Gifted Students in Rural Areas. Jay A. McIntire, Dale Doughty, & David W. Brown, College of Education and Human Development, University of Maine.

Regional Cooperative Relationships Report. Gail C. Downs & Lori Smith, College of Education and Human Development, University of Maine.

School District Consolidation in Maine: Finance and Staffing Models for Selected, Hypothetical Consolidated Districts. Jonathan A. Plucker, Walter G. McIntire, David W. Brown, & Dale Doughty, College of Education and Human Development, University of Maine.

Selected School District Factors and Grade Eight Pupil Achievement in Maine. Richard A. Moreau, & Walter G. McIntire, College of Education and Human Development, University of Maine.

Special Education in Maine: Attaining Equity Through Program and Finance Reform. W. J. Harris & P. Jain. Maine Education Policy Research Institute, University of Maine.

States' Provisions of Extra Funding For Economically-Disadvantaged Students. A. Mavourneen Thompson & David L. Silvernail, Maine Education Policy Research Institute, University of Southern Maine.

Success by 6: Report of the 2002 School Readiness Survey. Scott Brezovsky and David L. Silvernail, CEPARE, University of Southern Maine.

The Impact of Repeating a Grade: A Review of Research in the 90's. Susan K. Woodward & Tonya M. Kimmey, College of Education and Human Development, University of Maine.

Using Multiple Measures to Evaluate the Performance of Students and Schools: Learning from the Cases of Kentucky and Maine. J. Lee & T. Coladarci, Maine Education Policy Research Institute, University of Maine.

Using National and State Assessments to Evaluate the Performance of State Education Systems: Learning From the Cases of Kentucky and Maine. J. Lee & W. McIntire, Maine Education Policy Research Institute, University of Maine.

Using School Level Achievement Data in Determining Core Education Costs: The Impact on Perceptions and Policymaking. David L. Silvernail, Center for Education Policy, Applied Research and Evaluation, University of Southern Maine.

Maine Education at a Glance (Brief Research Summaries):

Academic Opportunity to Learn Visual and Performing Arts: Results of the Secondary School Survey in the State of Maine. Jeffrey S. Beaudry, Maine Education Policy Research Institute, University of Southern Maine.

Are Multigrade Schools Effective? Katherine Sargent and David L. Silvernail, Maine Education Policy Research Institute, University of Southern Maine.

Considering the Place of Teacher Judgment in Maine's Local Assessment Systems. Mark Kellis & David L. Silvernail, Center for Education Policy, Applied Research, and Evaluation, University of Southern Maine.

Does the Use of Holistic Rubrics Affect Student Performance in Reading and Writing? Jeffrey S. Beaudry, Maine Education Policy Research Institute, University of Southern Maine.

Educator Shortages in Maine's Public Schools. Veronica Gardner and David L. Silvernail, Maine Education Policy Research Institute, University of Southern Maine.

Enrollments and Degrees Earned in Higher Education Institutions by Maine Citizens. Jeffrey S. Beaudry, Maine Education Policy Research Institute, University of Southern Maine.

For the Love of the Profession: Teacher Salaries in Maine. Kathleen Bauman Grebrer, College of Education and Human Development, University of Maine.

How Teachers View Their Schools as Able to Achieve Mastery of Learning Results. A. Mavourneen Thompson and David L. Silvernail, MEPRI, University of Southern Maine.

Maine's Ranking in the Percentage of High School Seniors Enrolling in Universities and Colleges. David L. Silvernail, Maine Education Policy Research Institute, University of Southern Maine.

Some Issues Perceived as Problems in Public High Schools. A. Mavourneen Thompson & Veronica Gardner, Maine Education Policy Research Institute, University of Southern Maine.

Teachers and Principals Report on the Perceived Impact of MEA Tests. A. Mavourneen Thompson, CEPARE, University of Southern Maine.

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